

DISTRIBUTION AND WAREHOUSING



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... from the Editor



Will Free Deliveries Become a Menace?

It is reported to us direct, and an announcement to the same effect was published recently in one of the foods trade journals, that a merchandise warehouse operator (whose identity it is not, for purpose of discussion here, necessary to disclose) in a certain western city has inaugurated a free delivery service for some of his customers who are jobbers. Formerly he charged for the service, and his competitors in the same town are still charging for such service.

So far as our information goes, this western operator is the only one in the country who has succumbed to the temptation to get business in this way. It remains to be seen whether his trucking costs will be less than the additional profit he presumably hopes will accrue from attracting new customers lured by the vision of free trucking. Meanwhile he is upsetting the local competitive rate situation and has earned for himself the business enmity of the other warehouse operators in the community.

This idea of giving trucking for nothing apparently originated with Paul S. Willis, president of the Associated Grocery Manufacturers of America. As related in the June "DandW," Mr. Willis wrote Wilson V. Little, executive secretary of the American Warehousemen's Association, a letter which included the following paragraph:

"The carrying of stock in warehouses is determined on the basis of economy and better service. The new service of free pick-up and delivery by the railroads materially affects distribution costs and the manufacturers may no longer find it economical to store in public warehouses unless the latter will inaugurate also a delivery service."

Already, Mr. Willis further told Mr. Little, warehousing's customers were "motioning that they will insist on deliveries from the warehouses, the same as they get from the railroads." And Mr. Willis asked: "What are your warehouses going to do about it?"

Warehousing answered this question by doing nothing about it—except that the lone western storage operator fell for Mr. Willis's arguments and has created the serious local situation described. Their resistance to the AGMA president's proposition had been stiffened by Mr. Little's lengthy and intelligently-prepared reply.

Among other things, Mr. Little advanced this sane philosophy:

"If a warehouseman is really dependent upon the business that he does for out-of-town manufacturers and is faced with losing their business because he cannot afford to give this free store-door delivery, he will prefer to go broke by losing their business in the first instance rather than go broke in performing for them this delivery service at no cost to them."

Obviously this squared with the thinking of merchandise warehousing as a whole, with the single exception noted. At any rate, we have heard of no further propaganda emanating from Mr. Willis in behalf of his quaint idea. Perhaps the AGMA executive was just sending up a trial balloon—which warehousing as an industry promptly shot down.

The situation comes to the fore again here by virtue of a letter we have received from one of the discouraged home-town competitors of the western warehousemen who thought that Mr. Willis's idea possessed merit if not brilliance, but which the competitor characterizes as "such a silly idea."

"Apparently some seeds took root," he writes, "and it is unfair to a good neighbor who believes in the Golden Rule. We have heard how wildfire spreads, and the disastrous results if not checked at once!—well, the free delivery service started by this competitor is a dangerous precedent and is indeed detrimental to the warehouse business in general.

"It is understood that some AGMA members intimate that maybe the warehousemen are willing to make free delivery from their warehouses to local customers if they want to retain accounts; also, we understand from wholesalers in this city that they will recommend only such warehouses that make free delivery to them.

"The warehouseman is on the spot—faced with going bankrupt when he depends on the business of grocery manufacturers who use pressure to get goods delivered free from the warehouse to wholesalers, or is threatened with losing the accounts because free delivery service cannot be performed by him indefinitely.

"Storers know that the specific rates they are paying the warehouses for handling or storage are not sufficient to include drayage and that it would be necessary for proper adjustment of warehouse prices to cover any such hauling when required by them.

"Probably it is a violation of the Robinson-Patman Act when the selling agents of manufacturers promise free delivery to one customer and not to another."

This last sounds logical. Certainly it is something for any warehouseman to inquire into in advance, if he is contemplating abandonment of a long established practice. Because under the Robinson-Patman law, if a buyer of service is guilty of violation the seller is equally guilty and can be prosecuted.

A Labor Government at Washington

THE tumult and the shouting of the election campaign have ended and as an aftermath of the amazing triumph of Franklin D. Roosevelt the American people are confronted with the nearest thing to a Labor Government this country has ever known.

Time and again during the past twenty years we have sat at conventions and listened to the reading of lengthy papers on employer-employee relations. Most of the papers were looked upon by the delegates as "dry" stuff. Relatively few warehousemen paid any attention, in practice at their plants later, to the counsel offered.

The men who delivered the papers were executives with vision but they were ahead of their time. They were unhonored pioneers of a form of social evolution which is part of the Rooseveltian philosophy. This philosophy has already witnessed translations into action with the National Industrial Recovery Act and the Social Security Act, to mention only two.

The President never was a man to be disheartened by setbacks, from the Supreme Court or otherwise, and he will interpret his overwhelming reelection as a popular mandate to accomplish by new methods the results he had hoped for under the N.I.R.A. The Social Security Act is law. Better wages and working conditions and shorter hours for labor, and elimination of industrial slavery for children, are among his objectives, and he is seeking the cooperation of the nation's business interests in arriving at these ideals.

Political considerations, legitimate before Election Day under our American system of government, must now be subordinated to the common good for which Mr. Roosevelt is striving. Business has been told, by twenty-six to sixteen million in the popular vote, that the Roosevelt social philosophy has won the people's heart. The President is regarded as labor's champion, as witnessed by the overturns in the great industrial centers in Pennsylvania, Ohio, Illinois, Michigan and Connecticut.

These things which the President advocates will, barring war in Europe, make the newspaper front page headlines during months to come. They are part and parcel of American thinking and doing as never in the past. Washington will be labor's capital city, and the national Congress will grant a majority of labor's demands.

The business man's duty will be one not of partisan opposition but of considered cooperation. Reforms to benefit the working class are inevitable under the President's determined will. He will have his way, will find solutions, in the face of any opposition which business might choose to offer.

The role of business has become that of a minority party on the American industrial scene. It must make itself a constructive minority party. As such, Mr. Roosevelt will seek out its advice. It can be a critical minority, if its counsel is not destructive and selfish, and still not be unwelcome at the White House.

Meanwhile business has a duty to its employees. With organized labor fighting radicalism of foreign origin within its own ranks, business must come to la-

bor's aid, and in the long run to its own aid, through education of employees, in both open and closed shops, on the basis of American ideals. Business may have its own individual differences of opinion with labor but the American system must be preserved against inroads by Fascists, Reds and their ilk. To avert such, every American employer must make a particular and personal effort to place the right kind of literature in the hands of his employees. Employees must be made more informed. Keep out the foreign doctrines. Let labor and business in America settle their quarrels in the intelligent American fashion.

What is going to take place at Washington during the coming four years, in the form of social legislation, should be explained, in detail and without bias, by the employer to employees, from the standpoint of the individual company which hires them, for their guidance. The business man must work frankly and sympathetically with employees. The period of 1933-1940 is labor's ascending social era in ways unprecedented, and the business man must recognize that this is so and treat his employees accordingly.

Important If True

Several of warehousing's association bulletins have quoted the following from *Business Week*:

"U. S. Warehouse Act is reminder that a law can qualify as unconstitutional without New Deal backing. As result of Supreme Court hint that this 20-year-old Act licensing warehouses is encroachment on intrastate commerce, amendments are now being drafted."

We do not know the source of our contemporary's information but we asked our Washington Bureau to look into this situation, and emphatic word comes in reply that official Washington has no knowledge of any amendments being drafted.

Operations Under the Robinson-Patman Act

By far the finest analysis we have seen of conditions confronting American business currently as a result of the Robinson-Patman Act is set forth in an editorial titled "Time to Wake Up" in *Printers' Ink* for Nov. 12. We think it should be read and studied by every executive identified with sales, distribution and warehousing; hence our reason for devoting such generous space to it here. Quoting:

"By this time, the Robinson-Patman Act has divided all business into four parts:

"1. Those who are going to do their best to comply with the Act.

"2. Those who are going to try to get around it.

"3. Those who are wholly disregarding it.

"4. Those who, because they sell a service, do not come under its provisions—at least insofar as what they sell goes.

"The first class is by far in the majority. Most business men, whether they like the law as written or not, are doing all they can to abide by it. Theirs is a rocky course because of the difficulties of interpretation and the innumerable complexities of modern distribution.

"But essentially business men are honest and law-abiding. *Printers' Ink* cannot for a moment agree with spokesmen for the retailers—notably the druggists—that the majority of manufacturers are paying prodigious sums to lawyers to find loopholes by which they can evade the law legally, or that they are planning in deep secret to evade it unlawfully. Manufac-

turers may have been—indeed most of them were—sound asleep during the months the bill lay in Congress. They may feel that the Act as finally passed is economically unsound or unconstitutional, but nevertheless they are realizing that it is the law.

"There are those, of course, who are trying to get around the law, the second class spoken of above. In the eyes of their executive management they may be entirely justified in their course. There are people, and plenty of them, who try to get around the income tax, who use every *legitimate* means to evade all sorts of taxation. Legally speaking, there is nothing wrong with that. It's a good trick if you can do it.

"Then there is the third class. Here and there you meet a manufacturer—usually a small one—who, finding it difficult to get a clear interpretation of the statute, has simply thrown up his hands and decided to ignore it. There are a few others who, by some unknown method of reasoning, figure that the Government is not going to pay much attention to them anyhow, and therefore, they can forget the whole Act. A rather dangerous procedure.

"The last class encompasses the fortunate ones. It includes doctors, lawyers, advertising agents, and the like. It should be noted, however, that it includes them only as they sell and not as they buy. Under the terms of the Act, the buyer is guilty with the seller.

"One or two points about the Act in general are well worth remembering.

"First, in order to get a sound background on the law, one should read not only the testimony of the House Committee on the anti-discrimination bills, but also the testimony before the Patman committee to investigate the American Retail Federation. The idea isn't new. We may see traces of the trend as far back as the famous Standard Oil Company dissolution suit under the Sherman law twenty-five years ago. Nelson P. Gaskill, in his study of the Robinson-Patman Act, points out that the Senate Committee on Interstate Commerce in 1913 'urged that Congress should make exact definitions of unlawful conduct so far as it was possible to go, leaving as little to judicial expression as possible.' Again, acting under a Senate resolution passed in May, 1928, the Federal Trade Commission made a rather thorough investigation of the chain-store system of marketing, the last portion of which was not completed until 1935. This, too, had a bearing on the law.

"A second thing to keep in mind is that, although it is helpful to have a background of the law, it should be read primarily as though it were entirely new. While the Courts may be swayed somewhat by the intent of those who promulgated the law, the statute as it finally evolved is far from what it set out to be. Judge the law at its face value.

"A third thing to remember will be realized only after a thorough study and that is that it is remarkable, considering the procedure under which the law was passed, that it is as tight as it is.

"A fourth thing to bear in mind is that rumors that the law will be repealed by the next Congress are to be disregarded. It is fairly safe to say that it will not be repealed. It may be amended. But it is not likely to be repealed. On the contrary, there is strong movement on foot on the part of retailers to bring pressure for the passage of State Robinson-Patman Acts.

"A fifth thought is that the law has not been declared unconstitutional, nor is it likely to be as a whole. Even if parts of it are ruled out by the Supreme Court, it will take nearly a year for that to happen. Until a law is declared unconstitutional, it is a law. It is well, then, for one to dismiss from his mind the thought that he can disregard the law because eventually it will be knocked out.

"A sixth thing to remember is that the passage of the Robinson-Patman Act was about as good an example of the power of a small organized minority as it is possible to find. It covers all business, from tooth-brushes to elephants, from steel to packaged food, from coal to dentures. Yet it was written and passed through the efforts of a small group of wholesale grocers, aided and abetted by the retail druggists. Whether a person believes that is the way laws *should* be written, that is the way they are written. No one in the shoe business can afford to dismiss any piece of legislation without examining it closely, simply because the music about it seems to emanate from druggists.

"One thing more. Nobody should get the idea that Mr. Patman is a wild-eyed longhorn from Texas, a mere rabble-rouser. He isn't. He proved that when he spoke before the A.N.A. at White Sulphur. Wright Patman is a lawyer and an astute one. If he is not familiar with the problems of advertising or of manufacturers, that is at least partially the fault of business. The retail druggists took—and are still taking—particular pains to see to it that he and his colleagues in Congress know *their* problems."

He Wasn't in the Directory —and Has Lost an Account

National distributors use the "DandW" annual Directory to a broader extent than some storage executives pretend to credit.

We constantly come across new evidence in support of that statement—and in view of the fact that our next issue, January, will include the 1937 Directory, we cite here a current and striking instance of how one warehouseman has lost an account because he has not been sufficiently interested to be represented in the Directory. A memo reaches us from Wally Schuck, "DandW" advertising representative in Chicago:

"Today Mr. Smith, traffic manager of the Brown Manufacturing Co., called up. He said he had our 1936 Directory in front of him and was figuring on using the Blank warehouse in (a western city). He said his man in that city wanted him to use the Blank warehouse but that he, Mr. Smith, couldn't find it listed in our Directory, and that his experience in selecting more than twenty warehouses was that he was quite safe in following listings in our annual Directory.

"He asked me when the last time was that the Blank warehouse was listed. I told him in 1929. He said, 'if they haven't given you a listing since 1929, I'm going to do business with'—(mentioning another warehouse company in the same western city)."

The names are fictitious but the conversation and the circumstances are not.

**A detailed report of the
Sales and Traffic Executives' Conference
at the Hotel Astor in New York on Dec. 7 and 8
will be published in the January issue of
*Distribution and Warehousing***



Here is presented from the experience of the Great Western Sugar Co., Denver, Colorado, a story of efficient marketing of sugar through warehouse combination, wherein the economy of using public warehouses is demonstrated.

WHERE DOMESTIC SUGAR WILLINGLY GOES

By HARRY PADGETT

THE nature of domestic sugar manufacturing makes it imperative for a large company to use public warehouses. These are more economical, and the service from these warehouses to the company is much more efficient, than for the companies to attempt to maintain employees, and undertake upkeep for company-owned storage plants.

This has been the experi-

ence of Great Western Sugar Co., Denver. This company has plants in about twenty different towns in four States. Each plant manufactures sugar from beets grown in the vicinity.

The manufacturing period is from six weeks to three months in duration, and at the peak of that period there is an enormous amount of sugar being run off. To store that amount and the accumu-

lation at the end of the campaign would require an enormous amount of building space which would be used for only a short time each year.

Great Western's peak production year saw 11,000,000 sacks of sugar produced. The average output is between 7,000,000 and 8,000,000 sacks. This production starts toward the market almost immediately.

With these plants located in the West and far from the trade centers, spot stocks

must be maintained at strategic points. In the sale of sugar, various considerations are involved in marketing. There is a more or less shifting market, due to foreign imports and to the time of their arrival. Also at various times, government regulations have required changes in the marketing methods.

The foregoing considerations make use of public warehouses ideal. The company may spot stocks at no more expense than necessary, and these stocks may be placed where they are most advantageous. It would be costly for the company to own warehouses and not be able to use them due to considerations which make it impractical to do so. Also, with its own warehouses, Great Western would be tempted to store in its own places as a first consideration, and market conditions would come second.

Weather and general climatic conditions must be considered. Sugar is damaged if it is stored in a damp climate or where there are apt to be heavy rains and wind.

Also the longer sugar is stored, the more deterioration

there is. For that reason, operations are spread over as large a territory as can be efficiently served, and stock is sold quickly.

Great Western ordinarily uses more than a hundred warehouses in as many cities. Stock is kept to the West as much as possible and as pressure from the factories permits. Transit stocks are kept to the West, and the largest concentration of spotted stocks are in the cities to the West.

Avoid Rerouting

This avoids rerouting or reshipping. Local calls are easily filled from the stocks in the local warehouse, and calls from the East can be filled by sending loaded cars on past their first destination, or by re-loading at a western warehouse and shipping to the East. This method is not as expensive as to have to retrace a shipment.

The company has not found it necessary to make many changes in the warehouses employed by them. If the warehouse is weatherproof, and of a type easily accessible

for withdrawals, the primary considerations are satisfied.

The finished products are of various types of sugar, the grade and fineness being the chief distinguishing features. When shipped, these are in sacks, and marked. There are two sacks for every package—one a fine inner sack, and the outer of a good grade of burlap.

Damage or losses from shipping and storing are small. The company has never had any large unexplained losses. In the regions of its heaviest trade there are two representatives who are company men. A part of their duties is to check warehouse stocks at times for losses. Once an apparent loss of a dozen sacks of sugar from a warehouse resulted in several counts being made of the stock. Finally the missing sacks were discovered in an adjoining room where they had inadvertently been stored with flour sacked in a similar manner to the sugar.

(Continued on page 59)



Disputes Can Be Settled Without Resort to Court Proceedings

By LUCIUS R. EASTMAN

President, American Arbitration Association

THE idea has taken root in many sections of the country that organized business is primarily concerned with profit-making and selfish interests. Certainly from this viewpoint, American business, during the past four years, has suffered a considerable depreciation in the public mind.

One reason for that attitude is that undue emphasis has been placed on the bad features of business policy and not enough on its humanitarian activities and its contributions to public welfare.

The warehousing industry is an example. Every controversy between a customer and a warehouseman that is given publicity through the press or finds its way into the Courts—whether it concerns alleged over-charging, loss of or damage to household goods, arbitrary dealings or other situations which sometimes lead to differences—tends to establish in the minds of the public a feeling of resentment against warehousemen as a group and leaves a trace of ill-will generally. The merits of the controversy really become known, but unpleasantness and suspicion as a result of the dispute are definitely established.

The fact that warehousemen, particularly those in the largest city in the country, are making a notable contribution to public welfare and goodwill has not received the attention it deserves. In New York there is operating a system of justice for customers who feel they have grievances as a result of moving or storage transactions. Under it all claims are judged impartially, immediately and at little cost by arbitration instead of by litigation, with awards of arbitrators having the same force and effect as judgments of the Courts.

Warehousemen have accomplished this great forward step by the simple process of including an arbitration clause in all contracts with customers—a clause which provides for arbitration of any disputes by reference to an impartial, disinterested, non-profit-making body, the American Arbitration Association.

By adopting this process they have put into effect a system of insurance against the evils and hazards of that bane of all service groups—the Court summons. No longer can they be dragged into the Courts when claims arise. Having offered a fair and impartial method of adjudication to customers with whom they enter into contracts, and having had that offer accepted by the customer by the signing of the contract, the law says they may insist on that method of disposing of disputes. They can demand and enforce arbitration.

The arrangement, however, is not a one-sided one. The customer, as well, may demand arbitration of any controversy or claim.

The following case, typical of many which were referred to the American Arbitration Association by warehousemen or customers, illustrates how the method works.

A housewife, immediately upon the death of her hus-

band, decided to close her apartment until she could find a smaller home. A warehouseman was called to pack the contents of the apartment preparatory to removing them to storage. The usual contract between customer and warehouse was signed and the transaction completed.

Several months later the goods were ordered delivered to a new department, except certain articles which could not be accommodated there and which were to be delivered by the warehouse to an auction gallery for sale, one of which items was a locked secretary and contents.

When the articles were checked after delivery and unpacking, certain items were found to be missing or damaged; and when the customer visited the auction rooms to remove the contents of the secretary, additional items claimed to have been in the locked secretary when it was removed to storage, were declared to be missing.

The warehouse offered to adjust the loss of the first group of articles, but denied responsibility or reimbursement for the items missing from the secretary. Unable to adjust her claim, the customer's attorney issued a Court summons against the warehouse; but when his attention was called to the arbitration clause in the contract the Court action was discontinued and the case referred to arbitration.

One arbitrator was selected by the parties from the Association's panel—a man at the head of a large laundering establishment. After hearing the evidence of the customer and the witnesses for the warehouse he awarded the customer the amount of her claim for the missing and damaged articles discovered upon delivery of the goods to the apartment, but disallowed the claim for articles missing from the secretary, because in his opinion no evidence had been submitted to show these had been removed by employees of the warehouse and further because the secretary had passed through other hands which might have been responsible for the loss.

Anyone attending the hearing in this case would have been impressed by the absence of the unpleasant features which usually attend a lawsuit. There was no bickering between counsel, no harassing of witnesses; an atmosphere of dignity and goodwill prevailed. The arbitrator, through his familiarity with claims arising in a business of this type and with conditions leading to loss or damage from which such claims arise, was able by the direction of intelligent questions to each side to bring out the true facts and at the same time establish a feeling of friendliness between the parties. The warehouseman probably kept a customer instead of alienating one.

Another case concerned a lost bundle of wearing apparel—or what started out to be a bundle of wearing apparel. By the time the case reached arbitration the lost bundle had assumed such colossal proportions that, to quote the words of the warehouseman in an impassioned statement to the arbitrator, "two Herculeses couldn't have lifted it."

The belongings of a family were being placed in storage until a new apartment was ready for occupancy,
(Concluded on page 63)



Bauer & Black have entered the cosmetic field on a national scale with the introduction of Velure, a hand lotion. The company has heretofore made only surgical dressings and drug supplies.

Eucozone Laboratories, Inc., 429 Wayne Street, Detroit, is marketing a new stainless and colorless antiseptic called Cucozone, equal in germicidal strength to pure carbolic acid.

Seavey Laboratories, Inc., Burlington, N. C., has been formed to carry on business of chemist, druggist, chemical manufacturer and dealer in pharmaceutical and medicinal preparations.

Griffin Manufacturing Co., 8069 E. Forest Avenue, Detroit, has been organized to manufacture insecticides, and later a deodorant.

Cook Coffee Co. has purchased the former Rickersberg brass plant at 3615 Chester Avenue, N. E., Cleveland. The company plans to enlarge the present building.

Arbuckle Brothers, New York City, has sold its Yuban brand of coffee to Paton Corp., New York City, owner of the Golden Blossom brand of honey and one of the country's foremost honey distributors. The Arbuckle Yuban sales staff has been taken over by Paton. Arbuckle will continue sales of its other brands of coffee.

Kraft-Phenix Cheese Corp., Chicago, is building a \$2,000,000 plant on Peshtigo Court, one block west of the new Outer Drive Bridge. To be completed in the early summer of 1937, it will supplant the present plant on Rush Street. National Dairy Products Co., of which Kraft-Phenix is a subsidiary, will have offices in the new building, which will be nine stories high and have 382,000 square feet of floor space.

Da Costa Co., Inc., 601 W. 26th Street, New York City, is introducing Instant Liquid Coffee. It is packed in cans and contains no preservative.

McKesson & Robinson, Inc., Bridgeport, Conn., through its ethical division, is marketing Phos-Cal lozenges with vitamin D.

Pyavin Products, Inc., 8464 Sunset Boulevard, Los Angeles, is marketing a tooth powder called Py-A-Vin. Monsanto Chemical Co., St. Louis, will build a \$2,000,000 phosphoric acid plant which will be occupied next summer.

Fuller Blade Co., formerly in New York City, has removed its plant to 294 Badger Avenue, Newark, N. J. Oyster Institute of North America has established a department of buyer relations.

American Champagne Guild, New York City, recently organized, will promote through advertising the fact that American wine makers now have produced a champagne equal in quality to any others.

Nu-Enamel Corp., paints and varnishes, has acquired the Chi-Namel Paint & Varnish Co. plant in Cleveland, having removed its Chicago offices to Cleveland on Nov. 1.

Cranberry Cannery, Inc., South Hanson, Mass., maker of Ocean Spray cranberry sauce, will advertise extensively.

Flako Products Corp., New Brunswick, N. J., maker of Flako pie crust, will advertise in national publications.

Coco Cod Corp., Evanston, Ill., makers of chocolate flavored cod liver oil, has a newspaper campaign under way.

National Apple Juice Corp. is planning to advertise extensively its Apple Gold and Sunblown brands of apple juice.

Apak Manufacturing Co., Charlotte, N. C., has been formed by A. F. Dicktenmueller, former secretary-treasurer and manager of Knit Products Corp., Belmont, N. C., to manufacture mayonnaise, pickles, jams and jellies, with a division for baking cakes and bread. Paper Makers Chemical Corp., Kalamazoo, is building a \$100,000 factory to produce buttermilk, dried casein and powdered whey.

Van Loan & Co., 2917 S. LaSalle Street, Chicago, has added 5,000 square feet to its manufacturing plant to take care of the demand for bulk spices from the packing house trade.

DuPont has a new plastic glass called Pontalite. As a liquid, it can be used to impregnate wood, cloth, paper, stone, and electrical apparatus and render them proof against water, oils, and chemicals.

H. H. Meyer Packing Co., Cincinnati, has leased part of the plant of the Tampa Cold Storage & Warehouse Corp., Tampa. Equipment has been installed for man-

(Concluded on page 23)

By **CARLETON CLEVELAND**

WHEN the Anaconda Copper Mining Company started the manufacture of white lead and zinc oxides at its subsidiary plant, the International Smelting and Refining Company, at East Chicago, the public warehouse had already demonstrated its usefulness as a depository for manufacturers' spot stocks as a link in the chain of distribution. It was in 1920 that the East Chicago plant was put in operation, and negotiations were soon thereafter made with warehouses for carrying spot stocks at strategic points in the various marketing areas.

Inasmuch as the products of this plant are mainly used as component parts of other manufactured products, it was imperative that stocks be maintained in those centers where these secondary industries are located. Some idea of the principal industries using these products may be had by referring to a recent survey of the Mineral Resources and Economics Division of the Department of the Interior, where is shown the quantities of white lead and zinc oxide used during 1935 in various industries, as follows:

White Lead (dry and in oil)	
	Tons
Paints	91,297
Ceramics	1,834
Other uses	3,700
	96,831
Zinc Oxide	
Rubber	57,734
Paints	25,289
Floor coverings and textiles	7,179
Ceramics	4,028
Other uses	5,467
	99,697

Because of the extensive use of the foregoing in the manufacture of a variety of

International Smelting & Refining Co. maintains spot stocks today with the following public warehouse organizations:

Atlanta—Security Warehouse Co.
Baltimore—Baltimore Fidelity Warehouse Co.

Boston—Fitz Warehouse & Distributing Co.

Brooklyn—Brooklyn Terminal Stores, Inc.

Cincinnati—Baltimore & Ohio Warehouse Co.

Cleveland—Curtis Bros. Transfer Co.

Detroit—United States Warehouse Company.

Louisville—Louisville Public Warehouse Co., Inc.

Minneapolis—Cameron Transfer & Storage Co.

Newark, N. J.—Lehigh Warehouse & Transportation Co., Inc.

New Orleans—Douglas Public Service Corp.

Oakland—Oakland Warehouse Terminals.

Portland, Ore.—Northwestern Transfer Co.

San Francisco—Haslett Warehouse Co.

Trenton—Anchor Warehouse Co., Inc.

products, heavy shipments are made from the plants in East Chicago and Akron direct to the plants of the users. So great is the demand for zinc oxide by the rubber industry, for instance, that Anaconda has established more recently a plant at Akron in order

properly to serve the manufacturers of automobile tires at that important rubber products center. These direct shipments from the home plant have had the effect of decreasing distribution through warehouses to a considerable extent; but at that, stocks are being carried in fifteen public warehouses.

Agents and other large distributors also carry stocks either in their private warehouse premises or in leased space in public warehouses of their own selection. This is more particularly the case in one of the company's products—Anaconda White Lead-in-Oil—packed in containers ranging in size from 1 to 100 pounds and sold to the retail trade through wholesale and jobber outlets.

This product is made by grinding white lead in pure linseed oil to form an easy working paste, which is marketed under three classifications. There is a heavy paste, containing 8 to 9 per cent oil;

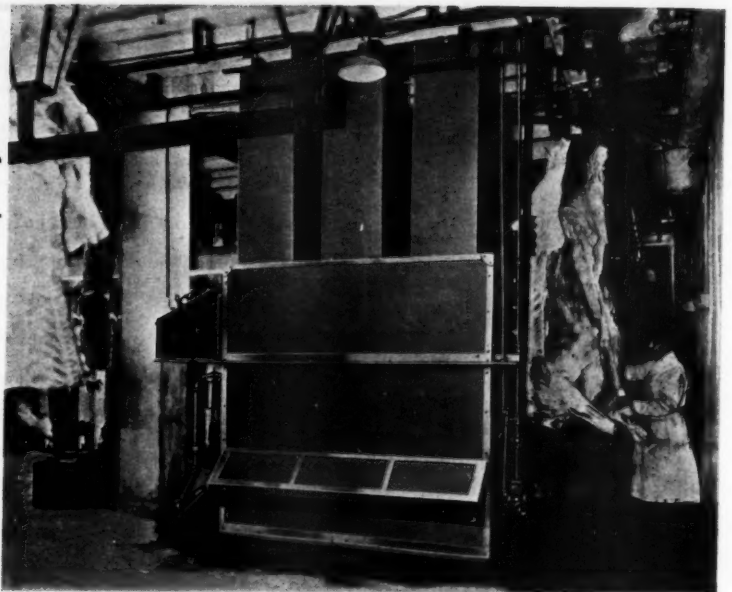
(Continued on page 51)



Administration Building

WAREHOUSES FROM COAST TO COAST

AIR CONDITIONING



Meat stored in air conditioned space by a "Carrier" low temperature diffusing unit

THAT warehousing is increasingly evincing interest in application of air conditioning to the industry is evidenced by information set down on questionnaires returned for the 1937 Warehouse Directory to be published as part of the January issue of "DandW".

Twelve merchandise and 14 cold storage warehouse companies reported they already have air conditioned space in operation.

Thirty-three merchandise firms and 1 cold storage operator reported they "contemplated" installing equipment.

Two companies reported they would "possibly" install it, and 4 others reported they would install it "if requested" or "if required."

The trend as indicated is nationwide. Nearly fifty cities in all parts of the country are represented by the affirmative replies, which represent about 15% of the Directory questionnaires returned to Nov. 20.



Apples stored in space filled with conditioned air supplied by "Carrier" diffusion system

ENTERS THE WAREHOUSE

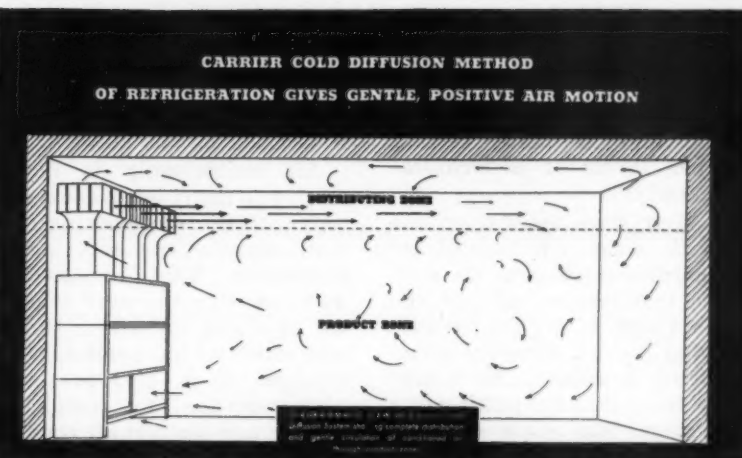
By J. F. SPRINGER

MANY people are now talking about air conditioning. But it is not always clear just what is meant. The term "air conditioning" has no fixed signification at present. It is quite possible that some persons are trying to get the meaning accurately defined. If so, success has not yet attended their efforts. An advertisement of a real estate concern may read that certain houses for \$6,500 are air conditioned. If a prospective purchaser really wants summer refrigeration included in the facilities, he would do well to inquire further. The house may have nothing of the kind, and the advertiser may explain, when pressed, that the air conditioning consists principally of the dissemination of water vapor in the winter time.

Then there is a kind of air conditioning employed by cotton mills and the like, where all that may be wanted is a high humidity to prevent the spinning machines from generating static electricity and thus interfere with spinning operation.

Again, the air conditioning for a home or an industrial plant may perchance be nothing more than the removal of more or less moisture from surrounding atmosphere. A drier air is wanted, it may be. And equipment capable of dehumidifying the atmosphere is installed. The owner may think he has air conditioning. In fact, he does have a part of it.

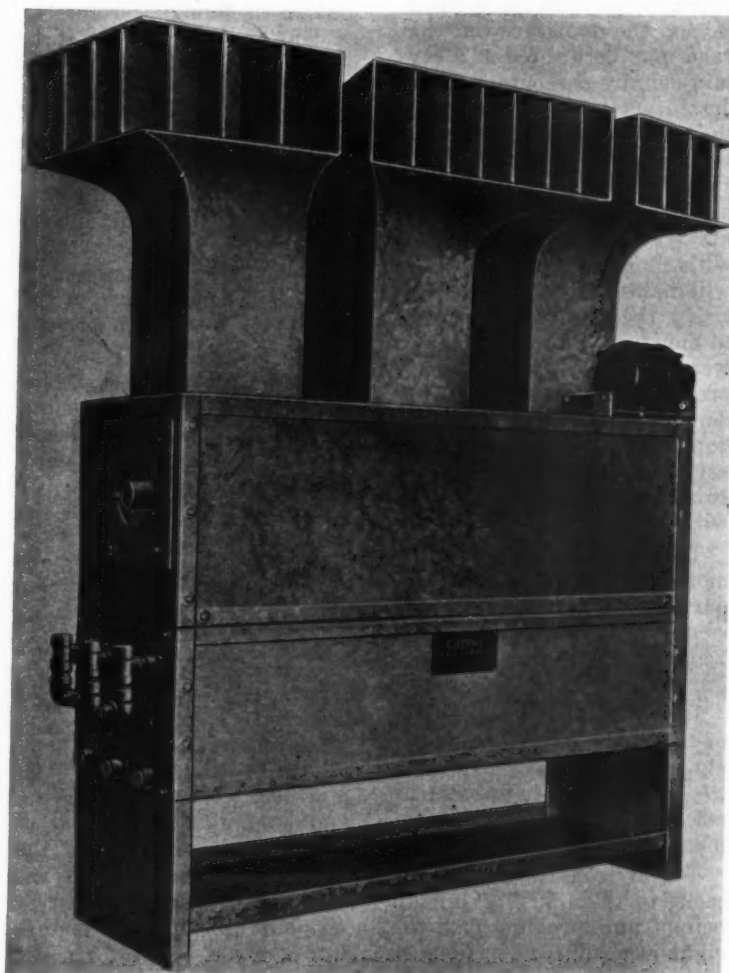
In short, if we purpose to consider modern air condi-



Diagrammatic view of "Carrier" cold diffusion system—complete distribution and gentle circulation of conditioned air through product zone

tioning, and weigh just how it fits in with progressive methods of preserving fruits, vegetables, grains, raw textiles,

meats, fish, raw hides, seeds, bulbs, and other commodities, in a high-quality condition, it will be just as well if reader



"Carrier" unit which diffuses conditioned air in storage space

FIELD . . .

and writer settle down to an understanding of so indefinite a term as air conditioning. It may be advisable also to define and elucidate certain other terms of a technical character.

First, there are distinctions to be noted. Industrial air conditioning has to do with the maintenance of just the right atmosphere for the carrying out of some manufacturing procedure. Or it may be directed to the putting of a product into some standard condition or to the maintaining of some standard condition after it exists. Thus textiles, as silk, wool, cotton, ordinarily contain a percentage of moisture. Your overcoat consists of so much wool and so much water. It may be that a fabric has to be produced by the weaving of yarn. If so, the moisture in this yarn may be wanted at a certain definite percentage in order to get the best results in the weaving. And further, the woolen yarn may be kept in storage awaiting the weaving process, and the storage space may be continually provided with an atmosphere which will maintain the fiber at precisely the right condition as to moisture, in order that the weaving may be begun promptly on receipt of an order for fabric. If this is not done, then it may be necessary to remove the yarn from storage and either add or withdraw moisture.

Temperature as well as moisture content may be important. So the *industrial air conditioning* may involve warming or cooling and adding or subtracting moisture.

Industrial air conditioning of the kinds described is quite old. It has nothing to do with the comfort or happiness or efficiency of the human workman.

The air conditioning which seeks to take care of human beings and provide just the right atmosphere for them is new. Its proper designation is *comfort air conditioning*. It

deals with temperature, moisture, air circulation, air purity. It has reference to the entire year, summer and winter, spring and autumn.

Air conditioning is now coming to the front in connection with the warehousing of many commodities, especially foodstuffs. What is meant is quite an advance over what we have had for a long time and which we have called cold storage. It is, at times, an approximation to complete year 'round comfort air conditioning. At other times, it may be something simpler. Since the temperatures are ordinarily lower than those employed in comfort air conditioning, it is not so inappropriate to term it low temperature air conditioning.

Let it be noted that no suggestion of human comfort is evident in this name. It is quite possible, nevertheless, that the installation shall include facilities to take care of workmen and executives and the personnel in general. It is often wise, when installing almost any type of air conditioning for commercial purposes, to provide for people as well as things, because of the maintenance of human efficiency.

The things that may be included in the air conditioning applicable to the super-warehousing of commodities may be listed as follows:

- Heating
- Refrigerating
- Humidifying
- De-Humidifying
- Air Circulation
- Air Purification

Some of these are more or less contradictory to one another and so do not lend themselves to simultaneous employment. Thus, humidifying and de-humidifying are, naturally, not employed in the same place at one and the same time. There would be no point in putting moisture into a given body of air and simultaneously taking moisture out. Or, of heating and

chilling the same air at one time.

On the other hand, we are not to conclude that one and the same air conditioning plant cannot be installed for the purpose of providing simultaneously different groups of air conditioning services.

In the warehouse it may be desirable to take care of a considerable range of fruits, for example. It may be that green bananas are to be ripened in one room and apples held steadily in a certain condition in another room. There may be a dozen or more rooms, each housing a different fruit. The temperatures required may differ from room to room. The provisions as to moisture may also be required to vary with the varying fruits and with the varying objects in view. In one room, heating is wanted; in another, refrigerated air is in demand. Indeed, it may be desirable to warehouse a single fruit in such way that the air supplied at one time requires to be heated and at another time to be refrigerated. In short, the conditioning plant may be required to supply a considerable range of atmospheres. It all depends on the characteristics of the jobs the air conditioned warehouse has accepted.

Variations with Farm Products

It has been ascertained that temperature and humidity requirements vary from one farm product to another. Peaches, for example, which are to remain in the air conditioned warehouse for a prolonged period of time may require that the air in the space where they are kept shall be at a certain constant temperature and also that this same air shall have a certain constant content of moisture. Pineapples will demand an atmosphere with another combination of temperature and moisture percentage. And so one. A different air for each of the different fruits.

(Continued on page 83)

TWO BITS

Vol. XI, No. 9

A Bit Here, A Bit There

Gotham, December, 1936

AFTER several mos. of almost prayerful plea for some storagers' contrib'ns so we wouldn't have to write this darn page all by ourself we are at last rewarded, if you could call it that, by rcpt of a quasi-elegant poem by Marvel Snyder, the Indianapolis storager. Titled "To Ye Ed.", it fluctuates as follows:

"A bit here, & a bit there."
& some of these bits are more than fair.

I've never read *Two Bits before*, & now I yearn to read some more. You lamented the absence of poetry. So here's a few lines to you from me. If this trash for your poetic soul is too much,
Don't print the stuff & I'll understand it as such.

You could understand it as such even though we do print it, Marvel, but we have to fill space.

Well, Ye Ed.'s hunch mentioned in our Nov. *Two Bits* was O.K. We have recvd a missive from Pellionella, the 3d of the missing tough lady moths whom, like we have told you about, we had advertised for whom in detective-story magazines, out advt bringing replies 1st from Biselliella & 2nd from Tapetzella, we having offered all 3 a job to ferret out scandal items for our cultured readers.

We published Biselliella's response in our Oct. *Two Bits*. Tapetzella's was in our Nov. *Two Bits*, wherein Zella announced she would return to our employ specifically to give Liela a sound thrashing on a/c that Liela had sent her a rubber check which Zella was thrown into gaol for having cashed.

Nella's letter has reached us express charges collect. Ye Ed. thought the postman was bringing in a ski for us to learn to utilize to & from our office during the 1936-37 winter season but what we unwrapped was a barrel stave & on it was written Nella's gentle communication — but not in ink, like you would of supposed, but in techtoboracidithermos, which is a green-colored anti-moth liquid which h. h. g. storagers use to de-cease moths with but Nella is too tough a dame to succumb to mere poison & is immune to techtoboracidithermos, which the printshop men who set up *Two Bits* into type now seemed to have learned how to spell without our having to

send them notes asking them why they never learned to spell techtoboracidithermos.

I [scribbled Nella on her barrel stave] write this in the back alley behind a storager's place. For a pen I am using a quill plucked from the business end of a stuffed peacock which he has in stge. For ink I am using techtoboracidithermos which he keeps beside the peacock to ward moths off with. Imagine!

Peacock quills are too hard to eat but I've been feasting for mos. on peacock feathers & peacock stuffing till that bird is so full of moth-holes he's about ready to collapse. The storager has just advertised it for sale because the owner hasn't paid the charges. Imagine!

A steady diet of peacock gives a lady courage to even read *Two Bits*. Imagine!

So that is how I came to be reading your Oct. & Nov. issues. I have faithfully perused what Biselliella & Tapetzella wrote you; & all I can say here is that I am not one to frustrate your plans. That is, that is all I can say here except (& you don't have to imagine) the following:

1st let me dispose of Zella's canard, published in your Nov. trash, that I am sixty if a day. I will have Zella know that I was born in 1886, the yr they dedicated Gotham's Statue of Liberty in. My mother took an active part in the dedication, in fact. She gave birth to quintuplets, of which I was one, while ensconced under the collar of the fur coat worn by the wife of the captain of one of the ferryboats carrying sight-seers over to the statue. The ferryboat captain saw us emerge & I vividly remember his vividly telling his wife words which best not be repeated in a home paper like *Two Bits* is. His language & demeanor was such that I became the sole surviving quintuplet, the other four sis-

sies de-ceasing of fright. So that don't look like I am sixty. On 2nd thought maybe it was Bklyn Bridge & not the statue.

Continuing, let me say that Zella is just bluffing about having borrowed a bumble-bee's spare stinger, like she said in your Nov. trash, to use as a weapon on Liela. Zella is so homely that no bumblebee would look twice at her, much less loan her a spare stinger. If she has a stinger she probably stole it from a dead bee.

All I ask is the privilege of seeing that fight. In fact that is my primary motive in hooking up again with your strange yen to uncover & publish scandal items about your cultured readers.

I suggest you hire a h. h. g. storager's packing box, substitute a screen for the cover, throw Zella & Liela inside, nail up the screen, & let them fight it out to a finish. But don't advertise it as the Fight of the Century because if I know those two dames, & I should, they'll back into their respective corners & pray to Pupaquassia, Divine Goddess of All the Moth Family, & it'll be the 1st prayer either has uttered since Grant threw a \$20 gold-piece across the Delaware at Gettysburg. Or maybe it was Garfield. I am a bit rusty on my economics.

So as soon as I've finished that stuffed peacock I'll board a h. h. g. van carrying a householder's pants, so I won't de-cease through starvation en route, & will visit your office to find out what my salary, expense a/c privileges, etc., will be.

From peacock feathers to pants as a lady's diet. Imagine!

There seems to be a deplorable spirit of unrest & turmoil among Zella, Nella & Liela & it looks like Ye Ed. might normally have to exercise considerable tact & diplomacy when those 3 tough dames

(Concluded on page 40)

There is A MESSAGE TO DISTRIBUTORS in

"What Long Distance Van Organizations Can Do for Sales and Traffic Executives"

which was on the program of the "DandW" conference of these executives at the Hotel Astor in New York on Dec. 7 and 8.

On behalf of *all* warehousemen equipped by experience and training to handle, safeguard and forward household effects for distributors, *Marion W. Niedringhaus*, one of the industry's leaders, addressed the conference on the topic quoted above, presenting the shippers with an illuminating story of what storage operators can do to service them when intercity removal of personnel, office furniture and plant equipment becomes necessary.

Proper performance of such intercity jobs is a specialized art.

The household goods operators who advertise in "DandW" thoroughly understand that art. Their employees are trained for the particular services required.

We recommend to distributors, then, that they consult the "DandW" advertising pages when intercity and local removal jobs are to be done.

DISTRIBUTION AND WAREHOUSING

WE'VE HEARD THAT—

By F. EUGENE SPOONER

THERE is approximately one billion dollars invested in warehouses in this country. The merchandise branch of the industry depends largely for its income on handling accounts nationally advertised. These national accounts use advertising "copy" prepared by the cleverest advertising minds in the world—and get results.

Through such results the warehouses expect to get a share of the business—but what do they do to get it? There is many a busy executive who at the last minute sends—for his advertisement in "D&W"—his letterhead, an illustration of his building, the name of the railroad alongside, the number of square feet operated, the street address, and service this and service that.

There are relatively few warehousemen who retain *bona fide* advertising men to prepare their "copy" or turn to advertising agencies to show them how to get the most for their advertising dollar.

We want to make "D&W" better for you and your customers, but we have to print what you send.

Let's go into 1937 with better "copy"!

Over the Air ○ ○ ○

The warehouse industry, at least two branches of it, has this year made use of radio to acquaint the public with what it is doing and what its services involve. In February the household goods service was explained over the air by some of its executives while they were in convention. Last month and in an earlier month women in homes were given good talks on what the cold storage warehouses means to them, also from an economic standpoint, in connection with perishable foods; they were told also of the many services rendered. A prediction was made that some day it may be possible for the housewife to rent cold storage lockers in a refrigerated plant, just as people rent safe deposit boxes. This has been tried in certain places, but has not been worked out completely as yet.

A.T.A. 1937 ○ ○ ○

American Trucking Association, Inc., will hold its convention in 1937 at Louisville. A truck show will

be held in conjunction with this annual meeting, which will be held probably in November.

Texas Rice Rates ○ ○ ○

Proposed reductions in freight rates on rough rice in carloads from Memphis, Helena, and Greenville to Baton Rouge and New Orleans have not been justified, according to a ruling by the Interstate Commerce Commission.

Jersey Port Zone ○ ○ ○

A \$10,000,000 pier and warehouse as part of a free port on the New Jersey side of the Hudson River is planned for completion in twelve to eighteen months. A permit was issued in November by the New Jersey State Board of Conservation and Development to the American Foreign Trade Zone Corp. The building will be located at the foot of Chapel Avenue, between the Lehigh Valley and Jersey Central piers, Jersey City.

Plans were presented to the State Board in Trenton by R. Wilbur Tietjen and Spencer Christopher, officers of the corporation, which was set up last August to provide a free port.

Space already has been set aside to dock twelve freighters at the new pier, but it is understood the corporation now must obtain the approval of the Federal Government before it can actually proceed with development of this free port area. Inasmuch as the City of New York was the first to obtain approval for a free port zone at Stapleton, Staten Island, it is expected objections may be lodged with the Department of Commerce.

New York Free Port ○ ○ ○

The United States' first free trade zone on Staten Island, New York, will, it is expected, go into actual operation on Feb. 1.

The original plan for an 8-acre zone has been modified so that the free port facilities will be confined to the actual steamship piers owned by the city of Richmond.

For the first few months at least, until the volume of business likely to be done in the zone has been gauged accurately, warehousing, sorting and other activities will be carried on in space provided in the pier structures. Office room also will be provided on the piers.

According to unofficial estimates the free port in its curtailed form will represent an expenditure of about \$500,000, of which \$225,000 has been for dredging and \$100,000 for road building. Estimates of the cost of establishing the port along its original lines had varied between \$800,000 and \$1,000,000.

Tobacco Warehouse Act o o o

Georgia's tobacco warehouse law has been upheld in a 2-to-1 decision in a three-judge Federal court. The law fixes fees warehousemen may charge for handling the State's leaf crop, which brought in more than \$18,000,000 this year.

The Court declared the Act was not confiscatory and that it did not infringe on either the constitutional rights of the warehousemen or their status as persons engaged in interstate commerce.

The warehouse fee law was enacted by the 1935 Legislature, but warehousemen attacked it before the 1935 tobacco auction season began. The difference between the old scale of fees and those provided by the law has been impounded, pending final adjudication.

Murphy to Sexton o o o

George Murphy, formerly traffic manager of Atlantic and Pacific Tea Co., Milwaukee, has joined John Sexton & Co. in the same capacity, succeeding R. J. Mortensen.

Elder Honored o o o

Karl R. Elder of the New York traffic department of Procter and Gamble has been elected vice-president of the Intercoastal Steamship Freight Assn.

Ships 1½ Billion Pounds o o o

Sears-Roebuck & Co. last year shipped 1,500,000,000 pounds of merchandise over the railroads and paid \$15,000,000 for doing so. This expenditure was 15% higher than in 1934.

Sugar Rates o o o

The Transcontinental Freight Bureau has been authorized to arrange for extension of carload rates on sugar now published to expire this Dec. 31 to an expiration date of Dec. 31, 1937.

Transportation o o o

The National Industrial Conference Board estimates that approximately 10% of all income in the United States received by individuals from private industries and occupations is provided by the transportation industry. Steam railroads, motor carriers, electric railways, water transportation, railway express companies, air services and pipe-line companies are included in this category.

The Board stated also that this industry was the fifth largest industrial source of the national income, being exceeded only by manufacturing, trade, agriculture and service industries.

Neihaus to General Foods o o o

Frank Neihaus, branch traffic manager at Peoria for Allied Mills Co. and Century Distilling Co., has resigned to become traffic manager of the Igleheart division of the General Foods Co. Harold Dellert, Allied Mills branch traffic manager at Fort Wayne, succeeds Mr. Neihaus at Peoria. Ralph Brown, assistant to Mr. Dellert, succeeds him at Fort Wayne.

Jones to Peoria o o o

Lester Jones, general traffic manager of Premier Pabst Corp., is making his headquarters at the Peoria plant. E. D. Hedstrom continues as assistant traffic manager at Chicago.

Davis Joins Keeshin o o o

Alfred D. Davis, veteran traffic man of New York City and one of the organizers of Universal Carloading and Distributing Co., has been appointed director of sales of Keeshin Transcontinental Freight Lines, Inc. Mr. Davis is a member and a former president of the New York Traffic Club.

German Glycerine o o o

A threatened shortage of glycerine in Germany has caused the German Government to issue regulations providing that this product hereafter may be sold in the domestic market only when transactions are approved by the Trade Control Board.

Credit Laxity Penalty o o o

For extending credit to Stivers Milling Co., Atlanta, beyond the 96-hour limit, after the mill had failed to pay for freight shipments as required by the law, the N. C. & St. L. Railway Co. was fined \$2,000 in the Federal Court, Atlanta. The milling company paid a fine of \$1,000 in Federal court at Rome last spring. The law holds shipper and the railroad equally guilty.

High Duties o o o

The recent raising of import duties on hemp, sesame and perilla seed to a prohibitive figure will force Spencer Kellogg & Sons, Inc., located at Terminal Island, Los Angeles, to confine its operations to the production of flaxseed oil.

The entire output of California flaxseed will be insufficient to keep the new plant running and it will be necessary to require additional supplies from the Orient and Argentina.

The total California flaxseed crop at present is about 700,000 bushels annually; and the new mill, when completed about the first of the year, will have a daily capacity of 6,500 bushels.

Wine o o o

What is believed to be the largest trainload of wines in history reached New York City recently. Eighteen carloads from California, amounting to 144,000 gallons, were consigned to Eastern Wine Co., which will market the product in its "Vatlined" cans. Vacuum filling and sealing will be used.

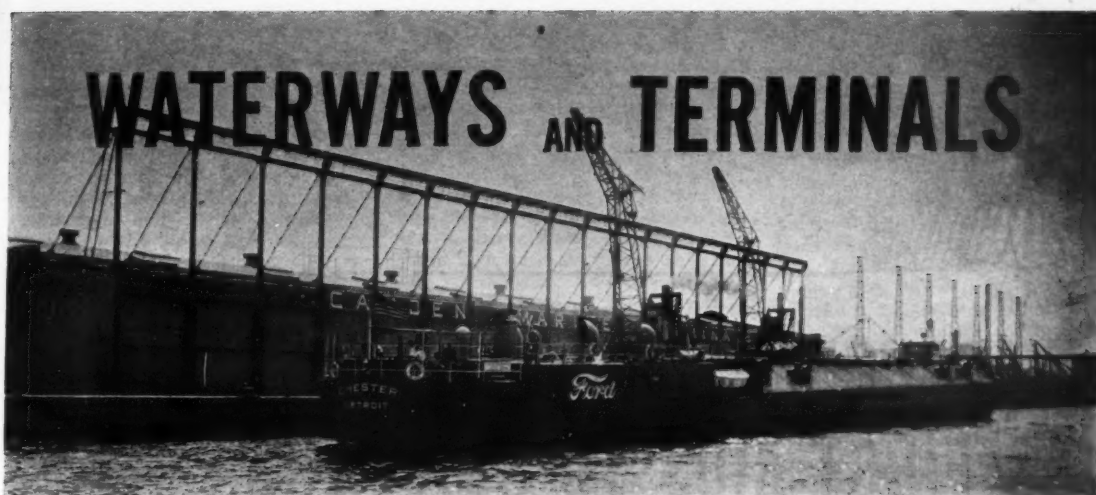
Toy Shipments o o o

Imports of toys for the current year are 40% ahead of 1935, according to statistics for the first eight months. In the same period exports have gained 38%. Japan and Czechoslovakia rank ahead of Germany as exporters, while toys produced in the United States are shipped to a dozen different parts of the world.

Tariff Costs o o o

Many shippers are not in favor of being charged by trucking operators and agencies for their published tariffs. They can understand why the trucking companies do charge, principally because they are now encountering costs under regulation that they never had before. However, it is felt that these tariffs are published to advertise the only thing these motor carriers have to sell—freighting service. These shippers hope that eventually it will not be necessary to absorb such charges.

(Continued on page 72)



Editor's note: This department is conducted in response to reader-demand for information of the character here given. Effort will be made to keep abreast of changes and trends. Address letters of inquiries to F. Eugene Spooner.

Get Busy With Business

THIS newest department of "DandW" was created for the express purpose of developing new business for warehouses and terminal operators in connection with water-borne traffic—particularly in cities and towns which, on navigable waters, have overlooked ship-to-shore opportunities.

We are making some suggestions and we want you to do something about it RIGHT AWAY . . . NOW . . . THIS MONTH . . . DECEMBER . . .

Many of you know of terminal warehouse operators in many cities who have developed a lot of profitable business—literally coming in the back door—tonnage in astounding figures—by working with water transportation lines already established, or in many cases new ones that have grown like mushrooms, to move the new business so developed, and you wonder why you didn't think of it first. Well, there are hundreds of locations where you can still be first . . . plenty of them.

More and more large industrials are becoming water-wise . . . Many, owning their own equipment of barges, tugs, motorships and oceangoing vessels, are the pioneers. Usually their traffic is in one direction and they are interested in return loads to anywhere—direct or through connections.

The increase of new bottoms in 1936, particularly on inland rivers, has exceeded all former construction, with a large program for 1937—and there really is a scarcity of docking facilities along these newly improved water-routes.

What happens? The first place that gets the inquiry for new business other than their own, is the small

coal, sand, gravel or stone dock. The business grows, a water-side house is built on that property and added to—and then the warehouseman back from the water finds his own tonnage coming through this back door and he is now a second guesser. . . .

Who is better fitted to do this job locally than the warehouse operator? I will answer the question. None. . . . But you will say—we don't store scrap iron, pig iron, coal, lumber, sand, gravel, stone and steel. Why not?

This tonnage requires no buildings, — comparatively little investment in equipment; and if you don't think there is a profit,—have a look at some local pig iron or scrap iron pile. Get an idea of the weight, multiply by, say five cents a ton for a month for the number of square feet of ground used—and will you be surprised?

That's only the beginning. Other merchandise follows—sugar, feed, cotton, tin plate, canned goods, cement, and what not. Some of that goes into the warehouse even if you truck or switch inland, and the lower water transportation freight rate pays the bill and still saves the shipper money . . .

Your revenue and profit comes in several ways.

1. Stevedoring.
2. Storage, outside or inside.
3. Trucking, local or long distance.
4. Handling in and out of warehouse.
5. Reloading into or from cars and trucks, etc.

Anyone of these will make the old cash register ring.

If you are on or near navigable waters, investigate

(Continued on page 64)



WAREHOUSE SOLICITATION GROUPS AS FIRST AIDS TO SHIPPERS . . .

NO business man would deny that the personal approach or contact is vastly more favorable and resultful than telephone contact or correspondence by letter.

The traffic executive, for instance, pondering over some vexing problem of routing, storage, or distribution, would be in a sorry plight indeed if he were obliged to depend on long distance telephone conversations and correspondence for eliciting information as to suitable warehouse facilities at various strategic points.

Warehouses have a service to sell, but inasmuch as it is inconceivable to even imagine any individual warehouse company maintaining a sales staff to travel about the country, there was developed, about a quarter of a century ago, the group or cooperative sales plan—organizations acting as bureaus for the dissemination of information on traffic, storage, and distribution problems of the manufacturer and as representatives of certain groups of warehouses.

The first solicitation organization for warehouse accounts was founded in 1911 by A. H. Greeley of Cleveland, George S. Lovejoy of Boston, W. L. Hinds of Des Moines, all of whom have since passed away, and several other leading warehousemen of that period. With some members these men formed the American Chain of Warehouses, Inc. Offices were opened in New York City and Chicago with a staff of trained representatives who started to contact manufacturers and shippers.

"THE value of the warehouse solicitation group to the shipper is yet to be recognized due primarily probably to the fact that the shipper is under the false impression that the group warehouse representative is soliciting entirely in the interests of the warehouses he represents. We are making a sincere attempt to overcome this fallacy. When we secure the confidence of the shipper that we are acting entirely in his behalf, then will warehouses perform their full function in bringing the shipper to the warehouse, or vice versa."

PAUL O'DEA.

Associated Warehouses, Inc.

Since that day there has been a steady development of this collective sales idea, new organizations following the pattern of the original, until today this group-sales plan has come to be looked upon as an important factor in the warehouse industry and has proven of great assistance to any shipper contemplating distribution through warehouses.

"These chains have developed into a national institution," says W. H. Eddy, of the American Chain of Warehouses, "and the busy manufacturer finds it most convenient to deal with an organization which can give him information regarding warehouse rates in a great number of cities without having to correspond with

each warehouse individually. This is advantageous not only in placing the stocks; it saves the manufacturer considerable time should he be unable to reconcile any of the bills covering charges for the storage or distribution of the stock.

It is surprising to find how many manufacturers have not been dealing with sales organizations when contemplating placing warehouse stocks, and often when a manufacturer contemplates placing an initial stock in a warehouse he is surprised to learn that these sales organizations have connections in most of the principal distribution centers."

A soliciting organization presents a veritable clearing house for traffic, storage, and distribution information. Representatives of any of these chains are men of long experience in their special field. Here the shipper may obtain the advice and knowledge of a trained distribution expert.

Supposing a traffic manager wants to learn about the many angles of local interest in the potential market centers from coast to coast. He can get this information without the risk of costly experimentation in new and untried fields. If he has a specific distribution plan, he can get help in transposing it into the operation of the merchandise warehouse; or entirely new plans can be worked out for him. In fact, the merchandise warehouse today is really a composite picture of practical assimilation of ideas and activities of nationwide shippers.

"From the national viewpoint,"

says M. H. Finger, of National Warehousing Service, "merchandise warehouses form the cogs supplying added momentum to the central distribution wheel of the manufacturer. The warehousing representative sees to it that these cogs are not only properly synchronized, but set up for continued economical and efficient operation. Not only the warehouse operator, but the shipper also profits by a well planned program."

According to W. D. Leet, of Allied Distribution, Inc., "there are about 1,800 national distributors now using public warehouses" to their satisfaction and profit; and he adds:

"There are probably 1800 more whose business would warrant using warehouses to some extent and in limited territories. The chief value of this group sales idea to the shipper results from the personal contact. It is always more satisfactory to discuss a warehousing problem with a competent representative rather than depend entirely on long distance correspondence to work out the details. A representative can be of great assistance to the distributor not only from the warehousing angle but also from transportation and sales standpoints."

Occasionally a manufacturer will take the mistaken stand that this service must necessarily cost him something in one form or another. This, however, is not the fact, because the warehouse industry has a definite selling problem on its hands, the same as the manufacturer of merchandise. When it is remembered that the expense of carrying on such a selling program individually by each ware-

house unit would be tremendous, it will readily be seen why the group solicitation has found such favor. Added to this is the fact that the solicitation groups, through the knowledge and experience of their representatives, are not confined to any one city or geographical location when discussing transportation and warehousing problems with a shipper. In fact, they pass on to the shipper the warehousing and distribution experience of others; they keep the shipper posted on local changes on various angles including factors influencing sales and traffic economies; the set-up of the public warehouse at any one point is fitted into the requirements of the individual shipper; and any number of details are worked out for him.

These men are familiar with the distribution methods and policies of many national accounts and are able, as J. G. Temple, of Distribution Service, Inc., has said, "to make suggestions and work out distribution plans which embrace the features of such methods as have proven most efficient and economical, eliminating those which have not been successful; giving the prospective customer the benefit of the experience of other similar accounts without his having to pay the cost of experimenting himself."

When it is considered how impossible it would be for warehousemen to call personally on customers or prospects in distant cities, or even maintain a staff of representatives for this purpose, the worth of the soliciting group at once becomes evident, rendering a service without cost or obligation to manufacturers and shippers interested

in the efficient, intelligent, and economical handling of their merchandise from the time it leaves the factory until it is in the hands of the consumer.

The traffic and sales departments of organizations carrying on a national or even a sectional distribution of their products are always interested in learning about the personnel as well as the facilities and financial standing of the warehouses they may engage. A shipper is generally desirous of knowing who will handle his merchandise and how the good-will of his company will be carried forward. This is important when use is made of accredited listings. On all these questions the representative of a responsible solicitation company can give satisfactory answers.

"Summing up the whole matter," Paul O'Dea, of Associated Warehouses, Inc., says, "the value of the warehouse solicitation group to the shipper is yet to be recognized due primarily probably to the fact that the shipper is under the false impression that the group warehouse representative is soliciting entirely in the interests of the warehouses he represents. We are making a sincere attempt to overcome this fallacy, as our organization places the shippers' interests far ahead of the warehousemen's. (In other words, we attempt to look at the entire picture, in our negotiations with the shipper and the warehouseman, from the shipper's standpoint.) When we secure the confidence of the shipper that we are acting entirely in his behalf, then will warehouses perform their full function in bringing the shipper to the warehouse, or *vice versa*."

The Parade of New Products

(Concluded from page 11)

ufacture of smoked meats and sausage which will be marketed under the company's Partridge brand.

• • •

Colgate-Palmolive-Peet Co. is making a nationwide drive to introduce Concentrated Super Suds, a granulated soap to remove dangerous germs in washing of clothes.

• • •

Scott Paper Co., Philadelphia, has joined with Mead Corp. in a plan to develop a pulp plant at Brunswick, Ga. The plant will be built and operated through a newly organized subsidiary, Brunswick Pulp and Paper Co., and will cost \$3,500,000.

• • •

Wesson Oil & Snowdrift Co., Inc., has purchased International Vegetable Oil Co., Memphis. The latter operates cottonseed oil mills at Augusta, Tifton and Savannah, Ga., Greenville, Miss., and Houston. Southern

Cotton Oil Co., Memphis, is a unit of the Wesson concern.

• • •

Leslie-California Salt Co., Los Angeles, will merge with Arden Salt Co., to form the Leslie Salt Co.

• • •

National Sugar Refining Co. of New Jersey, New York City, has introduced Grans, a new kind of sugar said to be different in that it retains the mineral values of raw sugar. It is recommended especially for children.

• • •

Gold Dust Corp., New York, has changed its corporate name to Hecker Products Corp., which is felt to be more appropriate for its wide range of products. These include soaps, shoe polish, preserves, cereals, flour, etc.

• • •

Gillette Safety Razor Company, Boston, has introduced in eastern States a brushless shaving cream. The company is building distribution for the new product and will eventually expand nationally.

FROM THE LEGAL VIEWPOINT

By LEO T. PARKER



Foreclosure of a Chattel Mortgage

VARIOUS courts have held that if the owner of mortgaged goods refuses to give up possession of such merchandise to the holder of a delinquent mortgage, the latter must file a foreclosure suit. Also, a clause in a chattel mortgage is void by the terms of which the owner of the mortgaged goods agrees to give up possession if he fails to fulfill the obligations assumed under the mortgage.

For illustration, in *Snow v. Nowlin*, 169 So. 598, Brookville, Fla., it was disclosed that a chattel mortgage contained a clause indicating that upon failure of the owner of the mortgaged goods to make prompt payments, the holder of the mortgage could repossess the merchandise. It is interesting to know that this Court held:

"The word 'repossess' . . . must be construed to have been used as being synonymous with the word 'foreclose'."

In other words, the Court held that the holder of a chattel mortgage must foreclose the mortgage in order to obtain possession of the goods, notwithstanding that the mortgage contract clearly provides that the holder of the mortgage may repossess goods without foreclosure suit.

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When Goods May Be Replevied

GENERALLY speaking, only the actual owner of merchandise who has a legal right to possession of the goods may successfully file a suit and replevy such goods.

Also, in order to sustain a suit of replevin for wrongfully taking and detaining a personal chattel, it is necessary to show that the pres-

ent possessor wrongfully took it from the actual or constructive possession of the legal owner.

For example, in *Pearson v. Reese*, 3 N. E. 929, Illinois, the owner of goods in possession of another filed a replevin suit. However, he did not prove that the possessor wrongfully possessed the merchandise. Therefore, the higher Court refused to hold the owner entitled to immediate possession of the goods, saying:

"There is no question that in order to recover in replevin a plaintiff must be the owner of or have the right to the immediate possession of the property replevied."

Mr. Parker answers legal questions on warehousing, transfer and automotive af- fairs.

Send him your problems care of this magazine. There will be no charge for the service.

Publication of inquiries and Mr. Parker's replies gives worthwhile information to the industry generally.

Liability of a Trucking Firm

IT is well established that a company is not liable in damages for an injury effected by a truck owner who is hired to haul freight, providing the truck owner is not under direct control of the company, and also providing the company is not a common carrier. It is important to know that a higher Court recently held that a common carrier cannot delegate its duty and thereby avoid liability.

In *Laughlin v. Michigan Motor Freight Lines*, 268 N. W. 887,

Michigan, it was disclosed that a truck company hired a truck, furnished freight for transport, directed its shipment, collected the revenue, paid the truck owner a certain per cent thereof, and required the truck owner to observe the truck company's rules in hauling freight for it.

The truck owner, while hauling freight for the trucking company, collided with another vehicle, seriously injuring the occupants, who sued the trucking company for damages. Counsel for the latter contended it was not liable because it did not own the truck. However, the lower Court held the truck owner a legal employee of the trucking company and held the latter liable. The higher Court sustained this verdict, saying:

"Since defendant [trucking company] admits that it is a common carrier, it may not escape liability under the claim that Franklin [truck owner] was an independent contractor, and . . . the duties of a common carrier are non-delegable and it is answerable for the negligence of persons to whom it entrusts the performance of part of its duties."

This same law was established in the following recent cases: *Motor Freight, Inc., v. Public Utilities Commission of Ohio*, 125 Ohio St.; and *Interstate Motor Freight Corp. v. Beecher*, 174 N. E. 27; and *Hazard v. Great Central Transport Corp.*, 270 Mich. 60.

o o o

Employee Is Held an Interstate Worker

CONTROVERSY arises over the question "Under what circumstances is an employee considered an interstate worker?" This is an important problem particularly if a motor truck owner has provided only intrastate workers' insurance and the employee is injured or

killed while performing interstate work.

In *Agrest v. O. and W. Company*, 186 Atl. 817, New Jersey, the higher Court was required to establish a rule by which it could be determined whether an employee is working in interstate or intrastate commerce and whether the employer's liability ceases after the employee receives payment of State workmen's compensation or insurance.

In this case the higher Court held that the employee was engaged in interstate commerce work and that he was not entitled to receive compensation under the State workmen's compensation laws. Moreover, although the employer carried the State compensation insurance, he was not relieved from liability. This Court said:

"The test as to whether an employee is engaged in interstate or intrastate commerce is . . . whether the employee is working upon some instrumentality used by the carrier in its interstate business."

In view of this decision it appears that a mechanic, although permanently located in his employer's garage, is engaged in interstate commerce work while repairing motor vehicles utilized by his employer to haul freight and merchandise interstate.

In order to avoid complications, and chances for heavy financial losses, it is advisable to investigate as to whether the present insurance protection is adequate.

• • •

Truck Owner Held Public Carrier

MANY Courts have held that a private truck owner who uses his truck exclusively for his own purposes is not required to obtain a certificate from a State commission. However, it is important to know that recently the higher Courts have taken a different attitude and have modified the old rule so that although a truck owner merely delivers merchandise sold to his own customers, yet he is within control of the State commission if he makes a charge for delivering the merchandise.

In *New Way Company v. Smith*, 96 S. W. (2d) 282, it was shown that a Texas State law provides that no motor carrier shall operate as a common carrier without first having obtained from the Public Utilities Commission a certificate of public convenience and necessity pursuant to a finding to the effect that public convenience and necessity require such operations. Also, the Commission was vested with power and authority to supervise and regulate transportation of property for compensation or hire

by motor vehicle on any Texas public highway.

A truck owner contended he was not a motor carrier for compensation or hire within the provisions of the law because he uses his trucks merely to transport his own goods sold to his customers.

The state officials contended that because the trucks are used on public highways to deliver goods to consumers, and furthermore because the cost of delivery, based on mileage covered in the delivery to the customers is added to the price thereof, the truck owner is a motor carrier for compensation or hire and comes under the law.

In upholding this latter contention, the court said:

"The highways of the State are public property, and their use for purposes of gain may be regulated or prohibited by the Legislature as it sees fit. . . . The power of the State to regulate traffic over public highways is well settled. This power includes the right to permit or prohibit motor vehicles, operated for compensation or hire, to use its public highways under such rules and regulations as the Legislature may see fit to prescribe. . . . This is not a case where the trucks are operated exclusively within the incorporated limits of a town or city; nor is it a case where the price of the goods delivered is the same as those undelivered."

Also, Oklahoma passed a statute similar in many respects. The Supreme Court of Oklahoma, in *Collins - Dietz - Morris Company v. State Corporation Commission*, 154 Okla. 121, held the truck owner subject to regulation by the Public Utilities Commission in view of these facts:

The price of the goods delivered included a direct charge for the delivery thereof. The cost of the delivery not only was reflected in the price of the goods delivered, but the price of the goods delivered was greater than the price of goods sold by the same truck owner that were not delivered. The title to the goods remained in the seller until delivered.

This court said:

"Since the seller receives compensation for the delivery of the merchandise, we must conclude that the legislative intent, as shown by the terms of the Act, was that this delivery be included in the provision of the Act."

• • •

Highway Tax Held Valid

A STATE law is valid which requires extra taxes to be paid by truck owners who use the highways to haul freight for others

for compensation although the goods are delivered in the seller's trucks to customers who purchased the goods.

In *Public Utilities Commission v. Manley*, 60 Pac. (2d) 913, a State law was litigated which required highway taxes to be paid by common carriers, private contract carriers, and owners of businesses using motor vehicles to make deliveries of goods sold to customers, if any charge or increased price of the goods was included to compensate the business owner for delivering the goods. In holding the law valid, the Court said:

"Requirements of this sort are clearly within the authority of the State . . ."

Obviously therefore warehousemen may by a State law be required to obtain certificates from the State commission to operate and also may be required to pay additional taxes for use of highways although their trucks are used exclusively in their own business. For this reason it is advisable that warehousemen and trucking associations in different States shall be prepared to meet emergencies to combat prospective laws of this nature.

• • •

Not Entitled to a Lien

GENERALLY speaking, a warehouseman, or bailee, is not entitled to a lien on goods to secure payment for any bills unless owner of the goods either expressly or impliedly authorized warehouseman to store them or to perform other service.

In *Post v. Lloyd*, 177 Atl. 560, it was disclosed that the owner loaned an article of value to his brother who, without authority of the owner, took it to a bailee and incurred bills. The bailee claimed a lien on it to secure payment.

However, as the bailee could not prove that the owner of the article had authorized his brother to incur the indebtedness, the Court refused to allow the bailee a lien.

• • •

Release Is Held Void

IN many instances warehousemen settle with injured employees and require latter to sign releases for all further payments for the injuries. A release of this nature is void if the employee did not know at the time he signed the document that he was signing a release of all further claims, or if the injury resulted from negligence by the warehouseman.

In *Downey v. Company*, 79 S. W.

(2d) 1063, Kansas City, an employee signed a release, for further claims for an injury, in part as follows:

"...for the sole consideration of eighty-one and 90/100 dollars paid by the company, I do hereby release and forever discharge the company, its successors and assigns, from all actions, causes of actions, suits, controversies, claims and demands whatsoever for or on account of injuries received..."

Later the employee filed suit to recover compensation, contending he did not know he had signed a release when he received the check for \$81.90. As the company did not prove otherwise, and also because the injury was held to be caused through negligence by company officers, the higher Court held the employee entitled to a verdict for \$1,500.

Ownership of Stored Goods

LEGAL EDITOR, Distribution and Warehousing: A customer stored with us a shipment of merchandise and afterwards he went into receivership. The goods passed through the hands of a trustee, the receiver, and also through the bankruptcy Court.

We sent a notice to the various parties that the goods on hand would be sold for storage charges and soon afterwards we received a check from a party representing himself as the owner. We have endeavored to get a definite statement of ownership from the bankruptcy Court but we have been unsuccessful. The question is:

Are we justified in demanding a written evidence of ownership, or would we be safe in delivering to the man who paid the charges and stated he is the owner?—*Warehouse Co.*

Answer: Various Courts have held a warehouseman is liable for delivery of goods to any person not the legal owner, although the latter claims to have legal title to goods in storage. Therefore it is advisable you obtain definite information regarding ownership before making delivery to the person who has paid the storage charges.

If he is financially responsible it may be proper for you to deliver goods to him, after receiving a written statement that he claims ownership and assumes responsibility for any damages or liability which may result to you by making delivery to him.

Liability for Goods Moved on Trucks

LEGAL EDITOR, Distribution and Warehousing: When is the owner of goods liable for their

damage or loss when his goods are being transported by a motor truck transportation company?—*South Co.*

Answer: Generally speaking, the owner of goods is not responsible for any loss unless caused by his own negligence.

If the truck owner is an independent contractor employed by the transportation company and agrees to perform work at a specified flat rate, and the company does not retain control over the driver or the truck, the owner of the truck is liable—unless the transportation company is a common carrier, under which circumstances the company is liable, because a common carrier cannot avoid responsibility by delegating its duty. (268 N. W. 887.)

Usually, under ordinary conditions, the owner of goods is not responsible for any damage or loss unless he has performed some act or made some statement to the driver which directly or indirectly results in the loss. Also, the owner of goods which are inherently dangerous is liable for their loss, and all other losses sustained by the truck owner, if owner of goods fails to notify truck owner of dangerous character of the goods.

Injury to Employee

LEGAL EDITOR, Distribution and Warehousing: If a warehouse employee sustains an injury as a direct result of his own negligence is the warehouseman liable although the warehouseman may have had something to do with the employee sustaining the injury? We had an employee who knocked out his eye on a peg and he blames us because we permitted the peg to be there; but the employee had seen the peg many times.—*South Warehouse.*

Answer: Under the circumstances mentioned you are not liable. This is particularly so because the warehouse employee knew the peg was there. Inasmuch as he knew that, then the Courts will assume he should have used ordinary care to prevent injury.

On the other hand, if the employee had been employed only recently, and had not known that the peg was in the location, then you would be liable for permitting the existence of a dangerous condition unknown to him.

Under all circumstances an employer is bound to use ordinary care to prevent injuries to employees. By that is meant that the employer is legally obligated to furnish a safe working place; if dangerous conditions, of which the employee cannot in the ordinary course of his work be informed,

are connected with the premises, then the employer is liable in damages for failure to inform the employee. The law expects both employer and the employee to use ordinary care to prevent accidents.

Selling Goods for Charges

LEGAL EDITOR, Distribution and Warehousing: Please inform us what out status is in a case as follows:

A warehouse sells goods for non-payment of storage charges and later finds that the goods were covered by a chattel mortgage. Is the warehouseman liable?—*South-ern Storage Co.*

Answer: The answer depends, to a degree, on the previous construction of laws by the Courts in your State. The universal law is that a warehouseman cannot legally, without consent of holder of chattel mortgage, sell mortgaged stored goods. Also, Courts have consistently held a warehouseman cannot recover storage charges on mortgaged goods unless goods are received in the warehouse by consent of mortgagee and with agreement that latter will be responsible for payment of charges if mortgagor fails to pay bill. Obviously the foregoing alludes to properly recorded mortgages. If mortgage is not recorded, warehouseman's lien is superior to the mortgage, unless warehouseman knew a mortgage existed.

Guarantee by an Employee

LEGAL EDITOR, Distribution and Warehousing: Have higher Courts held that a warehouseman is responsible on a contract in which his employee states to a customer that the warehouseman will be liable for all loss or damage to goods received for storage?—*Central Warehouse Co.*

Answer: The answer depends on the authority the warehouseman has extended to employees to enter into such a contract. In other words, if warehouseman authorized an ordinary employee to guarantee goods against loss or injury, the warehouseman would be liable.

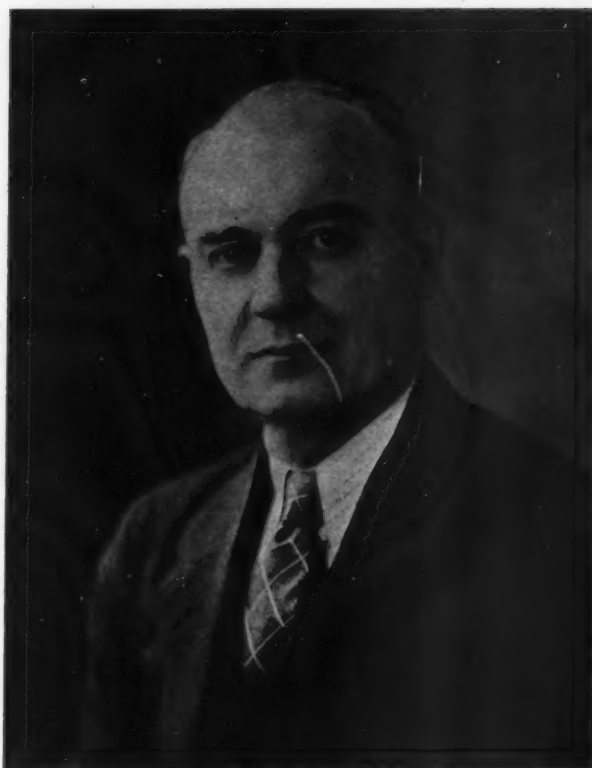
Another point of the law is that if the manager of a warehouse guarantees goods against any and all loss, the warehouseman is liable although he did not authorize the manager to make guarantees of this nature, because a manager is a "general agent" for whose acts and contracts, relating to the warehouse business, the employer is liable. This is true unless of course the customer knew the warehouseman had forbidden the manager to make contracts of this nature.

FAMILY ALBUM

A word portrait of
James F. Duffy

By C. J. Schulte

Mr. Duffy is owner of the Duffy
Storage & Moving Co., Denver.



TWENTY-FIVE years ago Denver was considered pretty much a jumping-off place by persons from other States. James F. Duffy, proprietor of the Duffy Storage & Moving Co., Denver, was then an ambitious youth in Livingston City, Ill. He had heard of the Colorado city as some far-off cow-town where cattle were driven through the main streets and where money could be dug from the earth. Co-mixed with his ambition was a restlessness that finally brought him to the West.

What was he to do? Three possibilities were open: he could go into banking, into a lumber and coal business, or into the warehousing field. For no reasons in particular, warehousing seemed to offer the best opportunity. Since then he has proven the wisdom of his judgment. The bank into which he had considered going failed years ago. In a country where there is

a coal mine in every back yard, money must be virtually smelted from coal.

As a lad in school young Duffy had worked for a doctor after school hours. Later on he gained experience which was to help decide him on his vocation. He took a job in a grain, lumber, and coal business at \$15 a month. There he stayed for ten years, at the end of which he was drawing a salary of \$80 a month. Eighty dollars looked small, then, to a boy who had had an above-par education. He had gone through high school, and he saw no point in working all his life for someone else at \$80 a month. This was the final straw which sent him westward—and into warehousing.

He was 27 years of age when he entered the field which was to make him outstanding in the mid-west metropolis of Denver. Soon after arriving in Denver he met and married Myre J. Heideloff. They have one child.

About the history of his own business Mr. Duffy is inclined to be reticent. He points to his Twentieth Street warehouse and remarks that there it is. He has been in business as an active manager for more than a quarter-century and has become well enough known in warehousing circles to be elected president of the Colorado Transfer & Warehousemen's Association; he has been this organization's chief executive for several years past. And when the Merchandise Warehousing Trade Code Authority was elected as an NRA group, early in 1934, he was chosen the Region No. 8 member and in the following year was reelected.

Little else can be said. Mr. Duffy is a quiet man who lets the other fellow do the talking. His friends seem to know more about him than he does himself.

One thing, however, will draw him out. Like most driving business men, he has a hobby. Summer and winter are never too hot or too cold for him. Summers, his friends find him whipping the streams for rainbow trout; winter finds him stalking game. Hunting and fishing are his hobbies.

An odd quirk about his pride in these hobbies can
(Concluded on page 42)



OPERATING COSTS TUMBLE WHEN



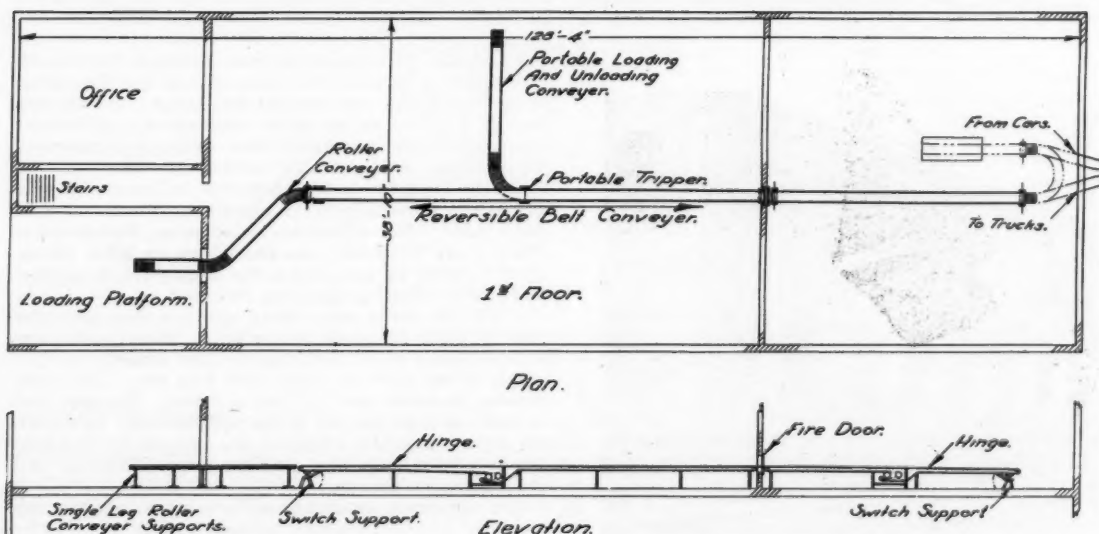
Handling of Stocks from One Floor to Another Often Makes for Confusion and Higher Costs. Good Management Dictates a Change When Stocks Move at High Rate of Activity.

1—Cartons are inclined from bonded storage area on declined and level belt conveyor, which is reversible and takes cases both in and out of storage.

2—Cases arrive at bonded storage area on declined and level conveyor.

3—Cases passing out of first floor area into stock delivery section on stitched canvas belt conveyor.

4—View of stock delivery floor. Note cartons being loaded into truck over portable roller conveyor section.



CONVEYORS ARE PROPERLY APPLIED

By LONNER RALSTON*

IN every warehouse today it is the object of those in charge to cut obstinate costs without sacrificing operating speed. Some managers have attained a notable degree of success in this regard; many others have resigned themselves to the idea that a high rate of activity demands high handling costs and have dismissed the problem as merely another necessary evil.

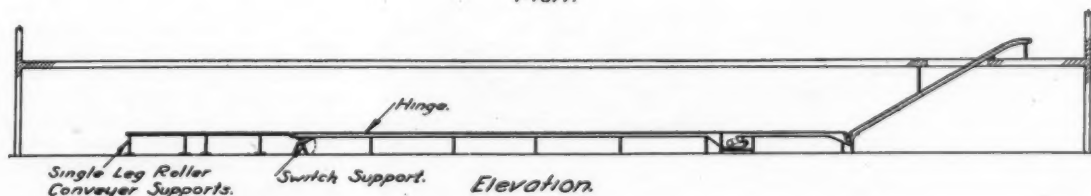
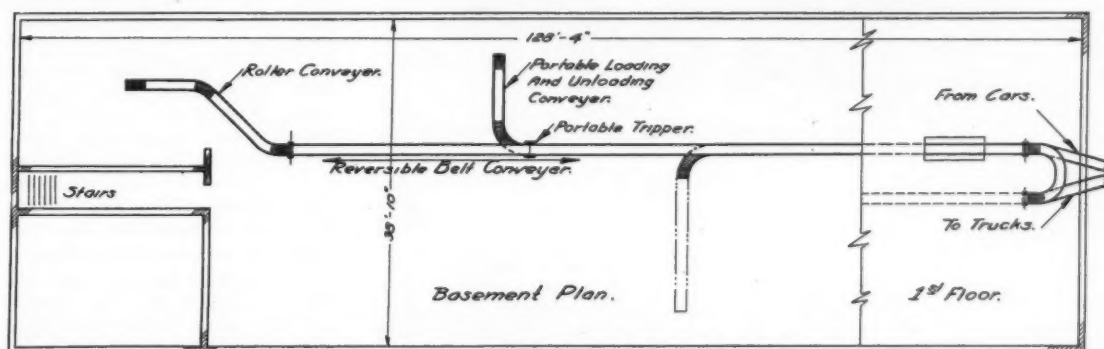
Let us take as an example the

* Engineer, Mailer Searles, Inc., Portland, Ore.



specific problem of a prominent Idaho warehousing firm, and fol-

low that problem through to its solution. The building is a two-
(Concluded on page 38)



MOTOR TRANSPOR

WHITE

Line of Four Cab-Over-Engine Models Has Style and Utility

A NEW line of four cab-over-engine models is announced by the White Motor Co., Cleveland, Ohio. This new line consists of

Models 805, 809, 812 and 818. These are graduated in size, weight and power, giving a wide range of capacities. A large group of optional features, such as wheel-bases, transmissions, rear axle ratios and tire sizes, are available to meet the requirements of specific operations.

Prices are as follows: Model 805 1½-2 tonner, \$1,650; Model 809 1½-3 tonner, \$2,240; Model 812 3-5 tonner, \$2,850; and Model 818 3-6 tonner, \$3,275. All four are equipped with six-cylinder engines, the first two using the Model 270 and the other two Models 303 and 318. The first two have four-speed gearsets and the others five-speed.

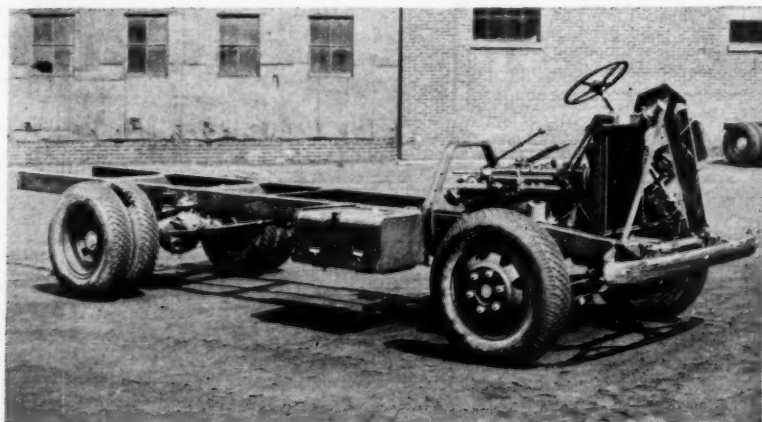
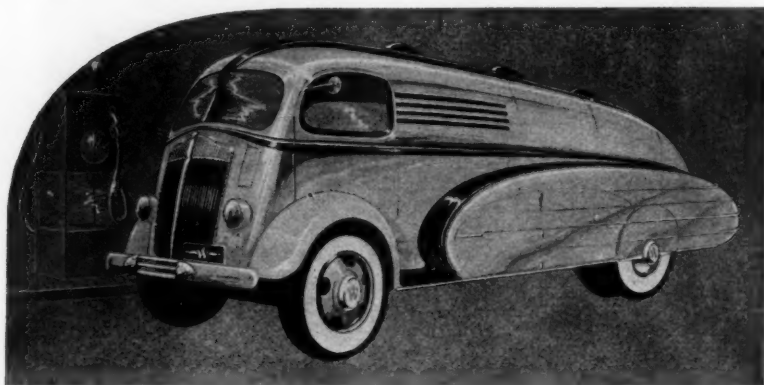
Several exclusive engineering innovations are incorporated in the new models, which have been designed throughout as cab-over-engine trucks and contain no compromise with conventional truck design. The forward placement of the front axle, an unusually wide tread of almost 80 in., a rear opening (safety) cab with an overall height only a few inches more than trucks of conventional design are important features.

The forward position of the front axle, determined after exhaustive study of all desirable cab-over-engine features, permits ideal weight distribution—one-third in front, two-thirds in rear—with a shorter over-all length than other chassis of this type, it is claimed.

The unusually wide tread provides excellent maneuverability and handling ease, while shortening the turning radius to a minimum. The outboard spring design increases the distance between spring centers nearly 12 in., an important factor in eliminating sidesway and bouncing.

Ease of servicing is another feature. Oil checking and filling, valve, fan, carburetor, distributor, generator and waterpump adjustments are easily made with the engine in place and with minimum labor. For major overhaul, the engine, clutch, transmission, radiator, and handbrake easily slide out on a sub-frame as a unit assembly. Running tests on the engine assembly after overhaul can be made before the engine is slipped back.

An important feature of the new White models is the rear opening cab for greater safety and driver convenience in backing. The forward positioning of the front axle permits hinging the door at the front. The cabs are also equipped with air-conditioning devices. A positive ventilating system assures the constant circulation of fresh, clean air, while thick insulation on the floorboards and engine cover insures a comfortable, fume-proof cab both winter and summer.

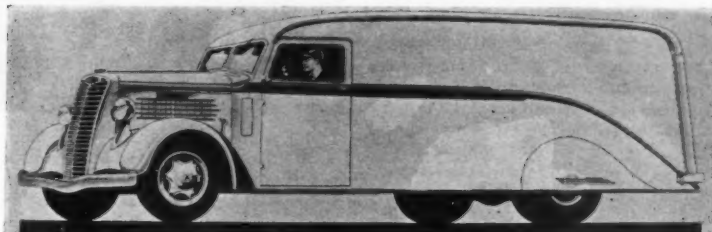


AUTOCAR

THE Autocar Co., Ardmore, Pa., has introduced two new models, RL and RM, built for the medium-load hauler. The RL has a tonnage rating of 4-5 and the RM of 3½-4½. The RL chassis is listed at \$2,400.

The RL has a gross weight of 20,000 lbs.; the RM, 18,000. Both use Autocar Blue Streak 6-cylinder engines of the heavy-duty type. In the RL the cubic inch displacement is 358. Horsepower is 85 at a governed speed of 2,300 r.p.m. The RM engine has a displacement of 313 cu. in.

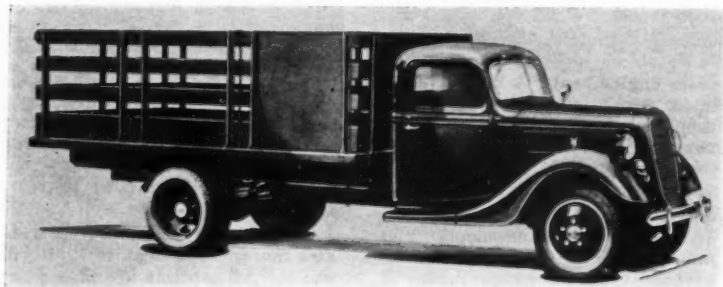
Drive from the engine is taken



through a 5-speed gearset in both models. This gearset includes a 1 to .78 overdrive for high-speed road travel. From there the drive is through a full-floating, heavy axle in which power is fed to the wheels after being twice reduced. This provides greater road clearance and a stronger axle. Brakes on both models are four-wheel

vacuum-operated. Tire size is 7.50/20.

The frame of the Model RL has dimensions of 85/16 by 3 by 7/32 in. The heat-treated carbon steel channel sections of the frame have six cross members to give strength, far in excess of safety standards. The stripped RL chassis weighs 6,750 lbs.



FORD

AMONG the features of the 1937 Ford V-8 truck are improved brakes, new cast alloy pistons and combustion chamber design, new cooling efficiency, ball bearing waterpump, larger crankshaft main bearings and improvements in appearance.

The brakes on the 1937 truck incorporate a new type of adjusting wedge for the brake shoes. This provides uniform clearance on each brake shoe between the lining and the drum whenever brake adjustment is made. The drums are cast alloy iron, ribbed for increased strength and rapid cooling.

All truck and commercial car models are powered with an improved 85 hp. V-8 engine. Use of a new type of cast alloy piston is one of the important engine improvements. Made of a new alloy having a rate of expansion corresponding to that of the cylinders, the new piston can be fitted with

less clearance than nonferrous pistons, it is claimed. This results in increased power and reduced oil consumption. Higher compression obtained from a combustion chamber of new design accounts for some of the increased power. A new type of fan requires less power to operate and likewise adds to the power output of the engine.

Cooling is made more efficient by shrouding the fan in an enclosure to give more uniform circulation of air. The waterpumps are now located at the bottom of the water-jackets. The water outlets are placed in the center of the cylinder head to provide more uniform cylinder cooling. The pumps are of a new type. For heavy-duty service they are pre-lubricated and incorporate the use of a double row of annular ball-bearings. Oil thrown from the timing gears automatically lubricates the pump on engines for ordinary service. The cylinder walls and crankcase are water-jacketed the full length.

The new engine crankshaft has a larger main bearing with a diameter of 2.4 in. This is claimed to give increased rigidity and resistance to torsional vibration. The total main bearing surface has been increased to 40.5 sq. in. The new bearings are made of a special anti-friction alloy bonded to a steel backing and are of the removable type.

In the full-floating rear axle, thrust disks have been added between the differential case and differential pinions and between the axle shaft gears and differential case. The lubrication of the differential is improved. The straddle-mounted driving pinion is continued.

Life of the distributor contact points has been materially increased. The distributor is driven by the front end of the camshaft. An automatic spark advance and vacuum-controlled governor are used.

DODGE

INCREASED loading space and reduced overall length which give greater ease of handling in traffic and at the loading platform are among the distinctions of a new "cab-over-engine" conversion just announced by Dodge. The cab and conversion are by Montpelier and are mounted on a Dodge chassis.

The Montpelier deLuxe "cab-

over-engine" conversion can be had on Dodge LF series 1½-ton chassis in all standard wheelbases and also can be supplied in special wheelbases from 108 in. up. The 129½-in. wheelbase unit, for instance, offers a back-of-cab-to-rear-axle dimension of approximately 81 in., which is recommended to accommodate a 12-ft. body.

The cab is of full deLuxe type with streamline front and with roof and cab corners fully rounded. The cab sides extend straight down below the sill to the running board line. Top of cab is arranged with double textured fabric deck material. The entire unit is designed to furnish deLuxe streamlined appearance.

Cab dimensions are 62 in. high from top of chassis frame to outside top of cab; overall width of cab 80 in.; coach type doors, approximately 31 in. wide by 62 in. high.

The sill and under-structure of the cab are of steel construction. The cab structure itself is securely fastened to this steel under-structure. Exterior panels are of auto body steel, formed to fit the cab curves. Doors at each side of the cab are of coach type construction*



with door hinged at front and with continuous piano-type heavy duty hinges. Lock and window regulator hardware is of heavy duty type with remote control to the lock. The windshield and corner glass assemblies are of permanent type, with glass set solidly in rubber channel. Ventilation is provided by ventilating glass in side doors, ventilators located in each front corner of the cab and roof type ventilator. Cab is provided with a driver's seat and back cushion with additional seat and back cushion at the right side of the cab. Seats are especially deep in construction, arranged to give the driver maximum riding comfort. (Sponge rubber seat cush-

ions available where specified at slight additional cost.)

The front end of the chassis is of heavy duty construction to take care of the redistribution of load in the chassis. A heavy-duty steering gear with 18 to 1 ratio is supplied. All items are so arranged that complete accessibility is offered for service.

Extra equipment consists of dual wheels and recommended tire sizes, auxiliary springs, front bumper, shock absorbers, booster brakes, special gasoline tanks, safety glass, dual windshield wipers, sponge rubber seat cushions, two speed axle, also available as extra equipment with gear ratio 5.1:7.1.

FEDERAL

THE Federal Motor Truck Co., Detroit, Mich., has brought out four new cab-over-engine models to add to its line of conventional truck models ranging from ¾ to 7½-ton capacity.

The new cab-over-engine models offered are as follows:

Model	Rating Tons	Gross Weight (lb.)	Base Price*
75	1½-2	11,000	\$1,045
80	2-3	12,000	1,395
85	2½-3½	14,500	1,595
89	3-4	16,500	1,995

Each of the above models is built in wheelbase lengths of 104, 120, 132, 145 and 159 in., with corresponding loading spaces of 92, 119, 143, 167 and 191 in. These wheelbase lengths are approximately 3 ft. shorter than the conventional Federal models of similar capacities, while the loading spaces remain about the same.

They are in no sense a conversion of the standard conventional Federal trucks, but are new, completely designed vehicles. The cab, which is only 4½ in. higher than on the standard models, is well forward over the engine. The latter is located in what is virtually a "wind chute," which quickly dissi-

pates engine heat. A heavily insulated steel cover over the engine keeps heat out of the driver's compartment. Two large cowl ventilators are provided.

The cover over the engine can be quickly removed, making this unit accessible for adjustments and minor servicing. An extra long bayonet type oil gauge makes it easy to check the oil level. Oil and water are added via the filler cap at the top of the cowl.

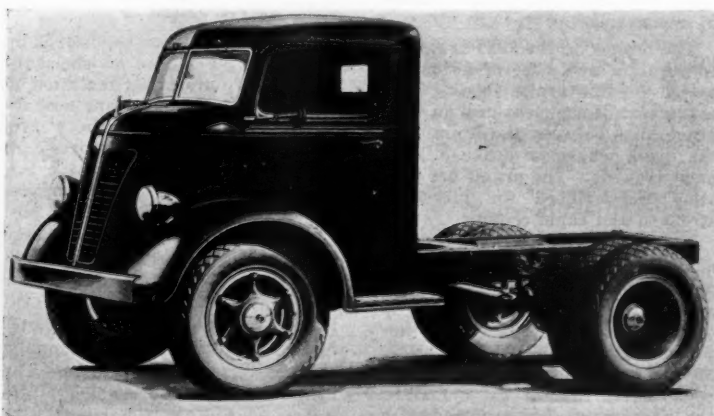
A pleasing appearance for this type of vehicle has been achieved

through the design of the front end which is extended forward from the cab, rounded and fitted with an attractive grille. The Federal-built cab is 71 in. wide and 43½ in. deep from back of cowl to rear. Doors are 32 in. wide.

The driver's seat is 21 in. wide and the opposite seat is 17 in. in width. All controls are placed for easy driving.

These new models are powered with Hercules L-head seven-bearing engines with specifications as follows:

Model	Bore & Stroke	Displacement	Rated Horsepower	Maximum Torque
75	3¾ x 4¾	228 cu. in.	64	149 ft. lbs.
80	3¾ x 4¾	263 " "	68	164 " "
85	3¾ x 4¾	282 " "	73	176 " "
89	4 x 4¾	320 " "	84	204 " "



*At factory for standard short wheelbase chassis. Standard tires and standard equipment, not including cost.

Front and rear axles are Timken. The front axle has an extra wide tread to permit short turning. The rear axles are full-floating spiral bevel types. Other general chassis specifications applying

to all models include an 8½-in. fish-belly type frame, 4-wheel hydraulic brakes with vacuum booster standard on the 80, 85 and 89 models, roller bearing universal joints, fore-shackled front springs and

rubber-bushed spring eyes and shackles that require no lubrication. The 75, 80 and 85 models are equipped with a 4-speed transmission in unit with the engine, while model 89 has a 5-speed transmission.

DIAMOND DIESEL

TWO new Diesel models have been announced by the Diamond T Motor Car Co., Chicago. These are stated to be the first light weight high-speed Diesel trucks ever placed in production and consist of the Model D20, 1½-3 tonner with a base chassis price of \$2,150 and Model D30, a 2½-4 tonner priced at \$2,750.

The Diesel engine in these two new models are built by the Hercules Motors Corp. and are of the DJX series. The Model D20 uses a 3½ by 4½ in. engine of 29.4 hp. and piston displacement of 260 cu. in. Maximum torque is 178 pounds feet and the engine delivers 77 hp. at 2,600 r.p.m.

The Model D30 engine is 3½ by 4½ in. and rates at 33.75 hp. Piston displacement is 298 cu. in., maximum torque is 208 pounds feet. Actual horsepower developed is 86 at 2,600 r.p.m.

Both engines secure clean and efficient combustion by use of a patented high-turbulence auxiliary combustion chamber. Alloy iron and steels are freely used throughout.

Cylinder block and upper crankcase are cast in one piece of electric furnace molybdenum iron. Crankshaft is exceptionally rigid and heavy, 3 in. in diameter and carried in seven large main bearings.

Main and rod bearings are of the interchangeable precision type, with force-feed lubrication, which is also supplied to piston pins and rocker-arm bearings. Waterjackets extend the full length of the cylinders and completely surround the exhaust valves and guides. Cam-

shaft and waterpump are driven by wide-faced gears carried in extra large bearings.

Light weight alloy pistons carry five rings each and piston pins of alloy steel are of the full-floating type. Waterpump is exceptionally large, and can be detached for servicing without affecting any other part. Connecting rods are of heat-treated chrome molybdenum steel and rod bearings are of 2½ in. in diameter.

The Bosch injection system is employed with plunger type fuel pump, pintle-type nozzles, and vacuum governor. Oil bath air cleaner and recirculating type thermostat are standard equipment. Rubber engine mounting of a new design is a special feature providing almost complete absorption of engine vibration.

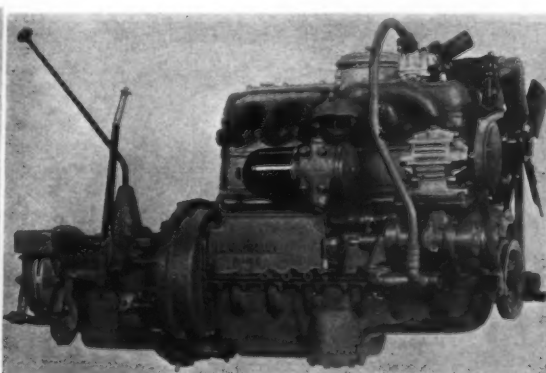
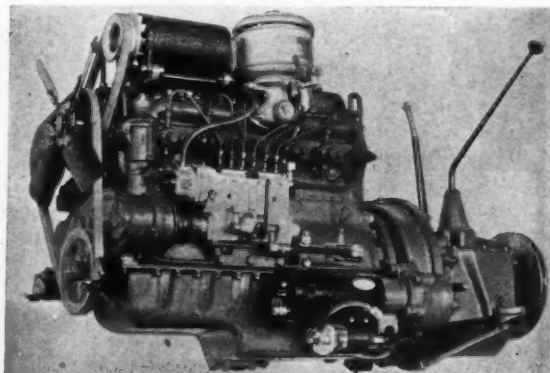
In both models the frames are of pressed steel with pressed side walls of exceptional depth and alligator jaw cross members. They are individually designed for each wheelbase, with ¼-in. stock and six cross members, the front members being extra wide to prevent wearing. The Model D20 has a maximum gross rating of 13,000 lbs. and Model D30 of 17,000 lbs.

Both models have heavy full-floating two-speed rear axles, providing a choice of axle reductions that can be used at any time, combined with the entire range of transmission gears. In the D20 the rear axle ratio is 5.14 to 1 in the high range and 7.15 to 1 in low.

For the model D30 two combinations of ratios are available. The fast axle gives a reduction of 5.62 to 1 in the high range with exceptional fuel economy and a top speed of approximately 48 m.p.h.—combined with a reduction of 7.65 to 1 in the low range, providing much greater pulling power for grades or soft going. The slower axle offers a reduction of 6.43 to 1 with a top speed of 42 m.p.h. combined with a ratio of 8.74 to 1 for use under severe conditions.

A straddle mounted pinion and extra heavy welded steel housing are a few of the design features that indicate adherence to the latest axle construction practice.

Lockheed internal expanding hydraulic brakes on all wheels are combined with power operation by a B-K vacuum booster. No lubrication is needed and lining wear take-up is by simple cam adjust-



ment. Drums on the Model D20 are 16½ in. in diameter; molded lining 2½ in. wide and 5/16 in. thick; giving total area of 310 sq. in. On the Model D30 the front drums are 16¼ in. in diameter and 2½ in. wide; rear drums are 17¼ in. in diameter and 4 in. wide; the total lining area is 405 sq. in.

Both models are lubricated by the Zerk system. No lubrication maintenance is needed for the spring shackles or clutch throw-out bearing.

Four wheelbases are provided for each model, 139¼ and 151¼ in. for bodies measuring up to 11 ft. in length, and special wheelbases of 163¼ and 175¼ in. (at extra cost) for bodies up to 14 ft. in length.

Other features include a 30-gal. fuel tank, metal spoke wheels, cam-and-lever steering with ball bearing in steering head and roller bearing cam follower, and flat tube and fin core radiator.

Exceptionally comfortable Diamond T cabs, standard or deluxe, are available.

GMC

A COMPLETELY new line of GMC trucks soon will be introduced and will comprise an array of cab-over-engine trucks ranging in capacity from 1½ to 12 tons and including the lowest priced 1½-ton model of this type now offered. The line of standard GMCs, also entirely new, has been augmented by the addition of a 112-in. wheelbase ½-ton unit which supplements the

126-in. wheelbase model already included in the line. It will be priced at \$395, chassis f.o.b., Pontiac, Mich., the lowest price ever placed on a GMC truck.

Both types of trucks are available with pickup or panel bodies of bigger than average size. The longer wheelbase will accommodate a panel body 8 ft. 5 in. long or a pickup body 7 ft. 7 in. long. In the 1½ to 2-ton range, there is a GMC truck with many advanced features of design and construction priced at \$525 chassis f.o.b., Pontiac.

Motor Carrier Bureau Starts First Criminal Action Under 1935 Act

(Washington Correspondence): Instituting the first criminal action of its kind since enactment of the Federal Motor Carrier Act, the Government on Nov. 10 filed informations in United States District Court at Scranton, Pa., against a transfer company and a carrier corporation, joint operating companies, according to Jack G. Scott, chief of the Section of Law and Enforcement, Bureau of Motor Carriers.

The charges filed by the Interstate Commerce Commission accuse the two concerns of violating the motor carrier law by collecting more than their published tariffs from certain shippers, and by charging other so-called favored shippers less than the published rates, and in some cases, no charges at all, Mr. Scott said.

Drafting and presentation of the informations, which carry 92 counts against the transfer company and 58 counts against the carrier corporation, marked culmination of months of investigation on the part of the law enforcement division of the Bureau.

Named as defendants also are six individuals.

Under the procedure followed by the Bureau's legal division, no grand jury action will be required and early trial of both cases is expected. Prosecution under the Act will provide a maximum fine of \$500 on the first count, and \$2,000 on each additional count for charges less than fixed rates. Where more than tariff is collected, the fine is \$100 on the first count and \$500 on each additional count.

Investigation of the charges covered two months starting June 1. Mr. Scott indicated that additional actions will be instituted in other areas in the East within the near future, as a result of the extensive studies which have been made by this section.

In a case involving less serious charges, the I. C. C. obtained an injunction in Federal District Court at Greensboro, N. C., against a freight line organization. The injunction restrains the carrier from violating tariff charges and extending credit to shippers beyond the 15-day limit under the Act. Should the carrier violate the restraining order it will be subject to contempt of court proceedings.

Mr. Scott pointed out that to

STUDEBAKER

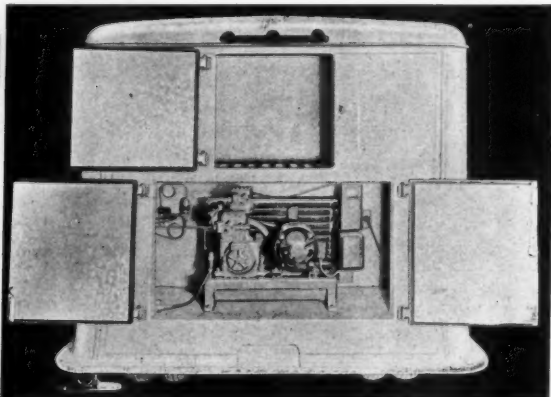
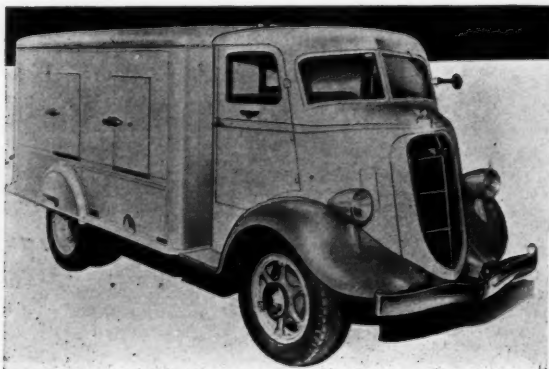
THE Studebaker Corp., South Bend, Ind., will announce its 1937 line after the first of the new year. Of interest to those needing refrigerated transportation is the recent announcement by this company of a cab-over-engine model equipped with a Batavia body. Refrigeration is accomplished with four Kold-Hold units and a 1½ hp.

Kelvinator compressor. The body is 142½ in. long and is mounted on a chassis with a wheelbase of only 125 in. Insulation consists of 6 in. of Dry Zero in the walls and roof and a 6-in. corkboard in the floor. The weight of the body equipped is 3,700 lbs.

It is stated that this body can be cooled at night in the garage at an average cost of \$6.00 per month. An automatic cut-off stops the ma-

chine as soon as the temperature reaches 10 to 15 deg. below zero. After an ordinary day's run of 10 to 12 hrs., the body temperature is generally about 5 deg. above zero, depending upon operating conditions.

The exterior panel is of 20-gauge galvanized rust-proof steel over ¼ in. of 3-ply veneer. The interior panel is of galvanized steel over veneer wood.



obtain a certificate under the Act, a carrier must have been in business before the law became effective, or demonstrate public need for its services. Both companies in the Scranton case have filed applications with the I. C. C. for permits but they have not yet been acted upon.

Pending establishment of rates by the I. C. C., the carriers are permitted to publish their own tariffs. These charges, once fixed

by the truckers, must be abided by, and it is alleged that the two concerns deviated from their rates, thus prompting action.

The investigation indicated that the concerns were inclined to allow substantial concessions in rates to shippers who furnished a huge volume of business, while the less favored customers were charged more than published rates.

Mr. Scott explained that it was necessary to proceed slowly in plac-

ing the protective measures of the Act in operation, as many of the sections require much study and interpretation. Passage of the Act, he said, "dumped" on the Interstate Commerce Commission "a big and tough job." He added that it has been necessary to start action on some sections first and then move progressively toward complete functioning of the entire measure.—(George H. Manning, Jr.)

Federal Courts Refuse to Enjoin Railroad Pick-Up and Delivery

(Washington Correspondence):

The United States District Court for Washington refused, early in November, to grant American Trucking Associations, Inc., a temporary injunction designed to block railroads in the eastern division from inaugurating pick-up and delivery service as approved by the Interstate Commerce Commission on Oct. 13.

This was the last-minute drive by A.T.A. to upset the surprising reversal of the Commission, which removed its previous suspension against this highly competitive service by the rail carriers.

The new rail tariffs were approved to go into effect on Nov. 16, ten days after the notice of modification was filed with the Commission.

The District Court was yet to decide, however, whether to issue an interlocutory injunction against this service by the rails. In either event, the parties indicated they would carry the fight to the Supreme Court for a final decision.

The points of controversy involved in trucking's bill of complaint, as summarized by Chief Justice Groner, were the following:

1. Whether the A.T.A. was the legal representative of the trucking industry, and thus had the right to appear in Court to ask for this injunction.

2. Whether immediate and irreparable damage had been or would be sustained by the trucking industry as a result of operations of the new pick-up and delivery tariffs of the rail carriers.

3. And whether the I.C.C. was in error when, by its order, it exempted the motor truck operations of the railroads from the motor carrier section of the revised I.C.C. act.

The high-powered battery of legal talent representing the railroads laid great stress on their

BULLETIN

(By Telegraph)

(Washington Correspondence): A three-judge Federal Court on Nov. 24 denied an application by American Trucking Associations, Inc., for an interlocutory injunction to restrain eastern railroads from instituting pick-up and delivery service on freight moving at minimum of 45 cents a hundred with 5-cent allowance for customers doing their own trucking.

The Court held that this is a mere terminal operation and therefore does not require certificate of convenience and necessity and also stated that the 5-cent allowance is not an unlawful rebate. The judges asserted it is not their function to determine whether the 45-cent minimum is a proper base.

The A. T. A. was expected to file an appeal within the statutory period.—(James J. Butler.)

contention that the A.T.A. had no legal right to appear with request for an injunction.

In reply, A.T.A. counsel, with the listing of previous legal precedents, made a strong attack on the premise that the I.C.C. orders, released to the public on Oct. 30, were invalid; that Congress did not directly or indirectly exempt the trucking operations of other carriers beyond the *bona fide* industry, from regulations of the motor carrier Act.

The Government representatives, from the Justice Department for the "United States of America," and for the Interstate Commerce Commission, questioned the legal right of the A.T.A. to ask for this injunction, and asked that the petition be dismissed.

Specifically, the A.T.A. bill of complaint filed with the Court asked that the Court grant a mandatory injunction on the I.C.C. to strike out all tariffs of motor truck operations not complying with the motor carrier section of the act; and, secondly, the bill asked for an injunction against the motor operations of the railroads not complying specifically with the provisions of the act.

The effect of the contested order is to permit railroads in the eastern division to furnish pick-up and delivery service on all traffic moving at 45 cents per 100 pounds, or more, and to provide a 5-cent allowance to shippers or consignees who perform their own trucking service.

The implications of the I.C.C. decision, trucking organizations agreed, reach much farther than the holding in the instant case, for the reason that it establishes precedents placing the rail-trucking operations beyond the reach of the Motor Carrier Act and leaving a large segment of motor transportation unregulated.

The importance of this consideration was recognized by national trucking headquarters here in a post-decision statement which declared:

"It is difficult to understand how trucking, whether performed by railroads or independent carriers, can be regulated properly if part of those carriers are relatively free from regulation while the other part is under more or less strict control as to insurance requirements, safety rules, hours of service, regulations and the necessity for obtaining certificates and permits."

In only two particulars—one of them relatively unimportant—was the railroad proposal turned down. The Commission decreed that the allowance to customers who do

their own trucking shall apply only to shipments moving at 45 cents or more per 100 pounds, instead of to shipments moving at 35 cents or more; and it was directed that the allowances must apply to consignors and consignees using Union Inland Freight Station No. 1 at New York, which business was not originally intended to be embraced in the tariffs.

Pick-up and delivery was described by the Commission in its voluminous decision as a "recognized right" of the railroads, dating back at least half a century in published reports, and regarded as an adjunct of rail service. Said the Commission:

Accessorial Use

"Our view that the accessorial use of motor trucks in terminal service by rail carriers was part of the transportation subject to regulation under the Interstate Commerce Act received support from Court decisions prior to the passage of the Motor Carrier Act. The United States Circuit Court of Appeals for the Third Circuit had occasion to consider the nature of pick-up and delivery service for railroad freight by motor truck in *New York Dock Ry. v. Pennsylvania R. Co.*, decided in 1933. In that case the defendant had proposed to establish a limited store-door delivery service in New York by the use of motor trucks beyond its terminals, and an injunction was sought, on the ground that the defendant failed to secure from us a certificate of convenience and necessity for the extension of its line. The Court held that the proposed accessorial terminal service by truck was not a railroad, nor a line of railroad, nor an extension of a line of railroad. In referring to the proposed arrangement the Court said:

"It is a 'service'; one 'connected' with the receipt and delivery . . . of property 'transported' within the definition of 'transportation'."

The Commission analyzed the opposition to pick-up and delivery service for railroad freight by motor vehicles, as going not to the question of its lawfulness but rather to the contention that the statutory provision governing the establishment of such services are contained in the Motor Carrier Act and that, as the railroads have failed to comply with the Act, their service must be considered unlawful. The principal point involved, the Commission observed, is the failure of railroads to register under the Act.

But, the Commission reminded, the new law places trucking operations under its supervision—"except to the extent that these operations are subject to the provisions

of Part 1." Turning its decision on this point, the Commission argues:

"In the foregoing language there is clearly expressed an intention to exclude the motor-carrier operations of rail carriers from the definition of a common carrier by motor vehicle to the extent that these operations are subject to the provisions of the Interstate Commerce Act. In making this exception Congress may be presumed to have legislated with knowledge of the Court decisions previously mentioned, holding that pick-up and delivery service is within the meaning of 'transportation' as defined in section 1 (3) of the Interstate Commerce Act, as well as our own administrative findings to the effect that, while railroad terminal service by motor truck was subject to regulation under the Interstate Commerce Act, the use of motor trucks by railroads in line-haul service was not subject to that Act."

Parenthetically, the Commission remarked that many railroad trucking agencies have applied for permits as *contract carriers* under the Motor Carrier Act, but that determination of their status in that category is not necessary to reach a decision in the pick-up and delivery case involving a claim that the railroads are *common carriers* by truck.

Discussing the subject in its broader aspects, and with reference to its economic angles, the Commission found general agreement among all parties that the proposal to perform pick-up and delivery service where it is not now available, with no "plus charge," is equivalent to a reduction in rates, there being no difference in principle between a rate reduction and an enlargement of services at existing rates. This being so, the Commission observes, the question arises whether the rate should be found to be lower than minimum reasonable charges.

Competition

"The protesting highway truckers' associations do not question the right of the rail carriers to better their competitive position by furnishing pick-up and delivery service, and in effect they concede that a certain amount of competition among all transportation agencies is contemplated in the regulatory statutes," the opinion continues. "Their chief concern is due to the belief that, because of the rates which respondents would apply in connection with their proposed service, protestants would suffer from an unfair or destructive competitive practice of the kind which the Motor Carrier Act was intended to prevent. The unfair competition would be brought about, as pro-

testants contend, by the inadequacy of the existing eastern class rates to cover the additional cost of pick-up and delivery service, particularly the rates for distances of 200 miles or less.

"It is well settled that we may properly exercise our minimum-rate power to prevent the disruption of an existing rate structure previously found reasonable, but no such situation is presented here, for it appears that substantially without exception the truck rates are the same as or lower than the rail rates which would be applicable under respondents' proposals. The question here is whether minimum rates shall be prescribed to afford one group of carriers protection against the alleged injurious rate policies of a competing group of carriers. It is well recognized that such an exigency may justify exercise of the minimum-rate power. It is equally well settled that public-service corporations have no constitutional right to destroy their competitors by unrestrained cutting of rates."

Cost Evidence

After an exhaustive survey of cost studies presented by the railroads to justify their claim that the proposal is economically sound when applied to commodities moving at 35 cents per 100, the Commission states:

"This cost evidence indicates unmistakably that much traffic on which pick-up and delivery is accorded at existing rates is being handled at a direct out-of-pocket loss which must be made up by the revenue from other kinds of traffic. It also appears that such a situation can hardly fail to be detrimental to the highway motor carriers with whom respondents are in competition. The evidence in this record indicates that the economy and efficiency of the motor truck in the shorter distances, for example up to 100 miles at least, has been definitely established, as shown by the small percentage of shipments for the shorter distances which the railroads have been able to recapture through pick-up and delivery. The performance of rail service at less than cost necessarily throws an unfair competitive burden on motor carriers and is not in harmony with the spirit of the Motor Carrier Act. We are of the opinion that the minimum rate to be observed in connection with respondents' pick-up and delivery service should be not lower than 45 cents."

Having disposed of the question whether railroads may perform pick-up and delivery without registering under the Motor Carrier Act, and having established a minimum rate for its application,

N. F. W. A. to Hold Convention at Washington Feb. 9-13

ANNOUNCEMENT is made by Ralph J. Wood, Chicago, secretary of the National Furniture Warehousemen's Association, that the group's 1937 convention will be held at the Mayflower Hotel in Washington, D. C., on Feb. 9 to 13 inclusive.

the commissioners turned their attention to the remaining question—the five-cent allowance proposed to be made available to customers who perform their own trucking.

It is frequently true, the commissioners declare, that when carriers undertake their right to pay reasonable allowances, these allowances take the form of drawbacks or rebates, and it is often difficult to determine whether the allowances are unjustly discriminatory and therefore unlawful.

Absence of any concerted drive against allowances on the ground of illegality is commented upon, and it is pointed out that some trucking organizations spoke favorably. The inference drawn is that the independent truckers foresaw an opportunity to share the trucking business, if shippers received an amount sufficient to cover their services.

"In our opinion," says the Commission, "the meager evidence of record on this point would not support a finding that the proposed allowances would be tantamount to unlawful concessions. Stated somewhat differently, it appears that they might aptly be termed 'undiscriminating rebates.' There is no contention that the allowances would be in excess of a just and reasonable amount, and we are therefore not called upon to make any findings under section 15 (13). Our power to require allowances higher than those proposed, as sought by certain of the protestants, is open to serious doubt from a legal standpoint, to say the least, and the factual basis for such a requirement on the present record is also insufficient."

Failure by the railroads to provide allowances at Union Inland Freight Station was classed as unduly prejudicial and was ordered remedied.

Commissioner Lee presented a dissenting opinion in which he declared himself "quite unable to believe that it was the intent of Congress to exempt from such necessary regulation the motor vehicle operations conducted as a part of through service by railroads in terminal areas, while at the same time, as we all agree, it

subjected to this regulation the similar operations in interstate or foreign commerce of all others in such areas."

Commissioners Eastman and Caskie joined in a dissent, written by the former, in which they declared the trucking operations of railroads divide into two classes, with the intercity line-haul operations subject to the Motor Carrier Act, and those within terminal areas not subject to the new law, but falling under the Interstate Commerce Act before its amendment.

These commissioners objected also to the allowance feature of the tariffs, saying:

"The record indicates that at most places in eastern territory this amount (five cents) will fairly reflect the cost of pick-up or delivery service. As the majority show, however, this will not be true at the larger cities, where the terminal area is extensive and trucking must be done under expensive conditions. In several places where a vast amount of less-than-carload freight originates and terminates, the cost will be 10 cents or more, and in New York City proper it will be as high as 16.5 cents. These are 'out-of-pocket' costs for trucking alone. The question is whether, in view of these differences and discrepancies, the spread between station service and store-door service can lawfully be made a uniform five cents."

The dissenting opinion presages an intensified fight for traffic, and comments: "The probable results of rate warfare conducted on this basis are not pleasant to anticipate."—(James J. Butler.)

I.C.C. Lifts Suspension of Joint Rail Tariffs

LEGALLY, the door for the first time has been opened for co-ordinated truck-rail service through the joint rates route. On Nov. 24 the Interstate Commerce Commission issued an order lifting suspension of the joint rate tariffs of the Chicago Great Western Railroad and the Illinois-Minnesota Motor Carriers Conference, Inc., operators, as well as that of the Keeshin Motor Express, Inc. This covers co-ordinated truck-rail service between Minneapolis-St. Paul and Chicago. This tariff had been under suspension and investigation since last May.

The tariffs now expected to go into effect are those of the Illinois-Minnesota group of operators, of which Harry M. Slater is the publishing agent, and those of the Keeshin lines, with Anthony Sicilia as publishing agent. These rates will not differ from those in effect, it is

Mayflower Convention in Cincinnati on Feb. 8-11

THE 1937 annual convention of the Mayflower Warehousemen's Association will be held at the Nederland Plaza Hotel in Cincinnati on Feb. 8 to 11 inclusive.

The decision to have the group assemble in the Ohio city was reached at a meeting of executive committee at Cincinnati early in November.

stated, so far as truck operators' charges to shippers are concerned. It will have the effect of removing the tariff set-up by the Chicago Great Western Railroad, however, and may lead to a peaceful settlement of the controversial question of truck-rail procedure of the western trunk line railroads.

Under the new order the old tariff of the Chicago Great Western railroad will be removed and the joint rates will be put into effect.

Protesting railroads had placed in effect a 35-cent per 100 pounds all-commodity rate between the Twin Cities and Chicago, to offset the present arrangement between truck operators and the Chicago Great Western whereby the trucking companies paid the railroad \$42.50 for each loaded trailer and \$21.25 for each empty unit moved over the rails between the two points. The protesting rail lines had filed tariffs with this 35-cent all-commodity rate, subject to minimum of 30,000 pounds.

Service for American Shippers Using Canadian Markets

Announcement is made by Norman C. Schell, president of Schell Transports, Ltd., of Toronto. Hamilton, Woodstock, Ingersoll and West Windsor, that the company has closed a deal with Moreton Truck Co., Detroit, to use the Moreton pick-up and delivery service to connect with American shippers who are using Canadian markets.

The new arrangement is designed to serve Canadian receivers as well as American shippers.

Soda Straws

A national user of warehouses for spot-stocking soda straws, now using 22 warehouses as against 35 last year, states that the decrease has been brought about because of a lower delivered price on its product, thus making it cheaper to ship from factory. A new product is to be introduced but the company claims it will use only those warehouses which have been employed up to now.

Operating Costs Tumble

(Concluded from page 29)

story structure, and of considerable floor area. It is used to store and transfer merchandise coming from approximately forty large suppliers. The basement of the building is reserved as a bonded storage area, and here the material is held until needed on the first floor, which is the stock delivery area. The use of freight elevator and hand trucks made this dispatching of cases and cartons from one area to the other a very laborious and expensive proposition. The chief characteristic of such a method, with so much material to be handled, was confusion. It was soon realized by those responsible that a change in handling was quite necessary.

A conveyer system, engineered to meet this specific problem, was passed upon, and installed. This equipment consists of level and inclined reversible belt conveyers, and stationary and portable sections of gravity roller conveyers, plus several unique features which tend to add flexibility and convenience to the system.

Let us follow a few cartons and cases from their point of arrival through to the shipping platform, and mentally contrast the present method with the one formerly used.

Arriving at the siding of the warehouse, cartons and cases travel over a portable section of roller conveyer, to a belt conveyer which is declined, and lowers the merchandise to the bonded storage area at the basement level, or, if the type of merchandise being handled is to be delivered within a short time, the cartons and cases travel over a section of roller conveyer to a second or level belt conveyer, leading to a bonded storage area on the first floor. When the merchandise is unloaded, the portable sections of conveyer are removed from the railway car, and the two belt conveyers, one leading to basement bonded storage, and the other to first floor bonded storage and stock delivery, are joined by a 180 degree roller conveyer curve. This makes it possible to convey material from one floor to the other continuously. This more or less continuous conveying between floors

is necessary in order that sufficient quantities will be on hand to meet delivery requirements.

Arriving at the floor where they are to be stored, whether it be the first floor or the basement, the cartons and cases are dispatched to predetermined points in every section of the storage area. This local distribution is made possible through the use of portable sections of roller conveyer, equipped with trippers. These devices trip the incoming cases from the main belt conveyers onto portable roller conveyer sections, which serve the storage areas. The portable trippers can be applied at any point along the belt conveyers, affording a flexible arrangement making possible the use of the entire storage space.

The belt conveyers which serve both the bonded storage area and the stock delivery area are of the reversible type. Cartons and cases may be conveyed in either direction desired. This feature adds considerably to the flexibility of the system. Stitched canvas belting is used on the level conveyer, and rough top rubber belting is necessary for the successful negotiation of inclined and declined conveying, which in this case approximates 28 degrees.

When the stock delivery floor is well supplied with merchandise, and the belt conveyers are not in use, end sections which are hinged can be swung up out of the way, affording more clearance for floor traffic.

The actual delivery shipping operations are quite simple; in fact, cases and cartons are placed on portable sections of roller conveyer at the stock delivery area, and are conveyed directly into the trucks waiting at the platform. There is no lugging about, no backbreaking and laborious lifting and carrying; in fact, the shipping operation is carried out with a minimum of confusion and delay.

There are three features contained in this system which merit special mention, because they are unique in themselves. First, the type of supports used on the portable sections of roller conveyer. A single leg adjustable standard is applied, set in

the center of the conveyer, and resting on a hexagon base plate. These supports, tubular in design, contribute to the ease of moving the portable sections of conveyer into and out of place. Second, let us look at the method used to bridge the gap between the first floor bonded storage area and the stock delivery area, which areas are partitioned by a fire wall. This necessitated two separate belt conveyers. So that material will convey smoothly from one conveyer to the next, a ball bearing roller mounted in a section of conveyer frame rests upon the extended shafts of the end pulleys of both belt conveyers. A single belt conveyer could not be used, because it could not be moved out of place to allow the fire door to close. The roller application mentioned above solved this problem. The cases and cartons travel over this roller from one belt conveyer to the other, and the roller is removed when the conveyers are not operating, leaving a space for the fire door to pass and close. Although a simple device, a roller used in such a situation as this particular one is unique, and quickly solved a problem which has often caused trouble in other instances. The third feature of interest is the type of drive mechanism used on the belt conveyers in the system. They are of the Mathews type 900, with pulleys in tandem. This drive, which is applied to the return belt, is compact, entirely within the outer limits of the conveyer frame.

During the 4 months in which this system has been operating, handling costs have actually been cut to one-third of what they had formerly been. The consumption of power is less and, above all, peak loads are being handled with a minimum of delay and confusion. We do not mean to infer that the great saving realized by the user of this equipment came about through the saving of labor. It is through the fact that so much more material can be handled in so much less time—this is the source of saving. A handling system such as this one creates continuity; there is a continuous flow of materials. It is these features which promote economy.

Warehousing Assails and Carriers Defend Storage Practices at Port of New York

Attorneys Argue Positions in Reopening of Ex Parte 104

(Washington Correspondence): Attacks by warehousemen on below-cost storage practices of rail carriers at the Port of New York, and defense of their operations by railroads, featured a hearing on Nov. 23 before the Interstate Commerce Commission when discussion of the I.C.C. ruling in Ex Parte 104, Part 6, was resumed.

The Commission, responding to a request by the rail carriers, had opened the case for oral argument after postponing from Dec. 1, 1936, to February 1, 1937, the effective date of its order to discontinue practices which private warehouse interests had protested placed them in an extremely unfair competitive position.

Both sides laid great stress upon the economic effect of the order on their respective businesses. It was clearly apparent from the testimony that regardless of the final decision of the Commission the case will be carried to the Supreme Court.

An unexpected division of opinion among warehousemen at the Port of New York was one of the highlights of the oral argument.

Charles E. Cotterill, attorney representing a group of the large warehousemen including Bush Terminal, Pouch Terminal, and Beard's Erie Basin, offered to the I.C.C. what they thought was a "practical solution."

Mr. Cotterill pointed out that to compel the railroads to get out of their storage and warehousing business altogether would be disastrous. The result of such an order by the Commission would mean millions of square feet of space would be thrown onto the New York warehouse market and would cause great hardship to the *bona fide* warehousemen, he explained.

While "regretting" that he differed from the opinion of many operators in that area, Mr. Cotterill recommended that the railroads "be held to high standard of rates; hold them to rates that are compensatory; hold them to full handling costs; and end the practice of offering free insurance."

His clients, he added, do not disagree with the rates of railroads for storage-in-transit out of New York, with two exceptions, namely, the rates for rubber, and wood pulp storage.

He pointed out that the insurance offered to shippers by rails, of 8 cents per \$100 coverage, was about one-tenth the regular insurance rate for such protection.

"It is merely a means to fight competition," he charged.

Mr. Cotterill answered the argument of the railroad attorneys, who had stated they should be allowed the same right to utilize their property as any private citizen—namely, for revenue purposes—by stating that the purpose of a private individual in utilizing his property for revenue purposes is to develop its maximum profit potentialities. The railroads, on the other hand, in claiming this right for their warehousing properties, do not attempt to develop their maximum profit potentialities, but utilize them to obtain a secondary end, namely, increase in line-haul revenues, he contended.

John J. Hickey, counsel for the Warehousemen's Protective Committee, made a strong and determined attack on the below-cost warehousing practices of the rail carriers.

Prefacing his remarks, he urged that the Commission

"go farther than its order, and send over to the Attorney General all information of its investigations for proper action. The record of this case shows indefensible violations of the law," he added.

"Not one railroad has shown by evidence where it has performed a useful service in establishing warehouse facilities in the port of New York," he declared. "Their motives in these operations are to say to a shipper: 'We can't give you a \$10 rebate, because that is too dangerous, but we will give you \$12 worth of storage service for \$2.'"

"The railroads have completely destroyed New York warehouse investments. Operators can't even get operating expenses out of their facilities," he said.

He then reminded that railroads are prohibited from entering into the warehousing business by Section 3 of the I.C.C. Act.

Illustrating what he considered a complete nullification of the railroads' statement that they did not engage in rebating, Mr. Hickey pointed out that the Erie rents space from the Seaboard Terminal Company in Jersey City at 85 cents per square foot, while three blocks away the Lackawanna rents space in its terminal at 22 cents. "If one isn't a rebate then the other is," he accused.

Appearing for the merchandise division of the American Warehousemen's Association, A. Lane Cricher pointed to the decision of the I.C.C. of 1898 as precedent for its order to the railroads to cease and desist warehousing activities below cost.

That decision, Mr. Cricher explained, pointed to the indefensible position of the railroads in attempting to justify their storage operations at that time.

"Railroads now can't raise the question of confiscation in view of their unlawful practices," Mr. Cricher said. "They are in reality confiscating legitimate business of *bona fide* warehousemen."

W. J. Larrabee of the Delaware & Lackawanna Railroad, made one of the major arguments for the carriers.

He stated that the I.C.C. order was "legally unsound and in error, and that the Commission is without statutory authority to force" the railroads to end this phase of their operations.

His ace in the hole was his reference to the Duluth Chamber of Commerce case, in which he stated the Commission specifically allowed a rail carrier to offer free storage during the winter at Duluth and Superior while lake navigation was halted by the weather.

Stressing this and other decisions by the Commission, Mr. Larrabee claimed that the order for the Port of New York was contrary to other orders of the past.

Under questioning by Commissioner Eastman, Mr. Larrabee stated that "except in isolated cases, there is sufficient revenue in line-haul tariffs to offset losses in storage operations."

Mr. Larrabee added that the order by the Commission prohibits carriers from operating warehouses "without making fixed charges as interest, etc.," and actually even the private operators are not making such charges from their own warehouses.

"The record in this case does not show anywhere that

railroad warehousing rates are below the regular warehousing rates," he added.

E. H. Burgess of the Lehigh Valley Railroad made a strong denial that his company was ever guilty of rebating, and thus sought to clear Lehigh of the charge of discrimination arising from the alleged rebating.

He declared that the standard of charges of warehousing or storage-in-transit was fixed by the Commission "as compensation on leases no less than what the private owner would be able to get."

The Lehigh, in the operation of its three large terminals in the port of New York, "charged the prevailing rates of the market," he emphasized. The empty space in these warehouses was proof that the Lehigh rates were not lower than those of other *bona fide* operators of warehouses.

Alex H. Elder, attorney for the Central Railroad of New Jersey, said the background of the I.C.C. decision was based on the "wrong assumption" that the Central was giving "cheap warehousing" to attract business at its Newark terminal. He said the railroad had tried to sell its warehouse to independent operators, but failed.

Mr. Menard of the Seaboard Terminal declared that if the I.C.C. order, setting the "reasonable" rent to be charged the Erie for space in the Terminal at 47 cents per square foot were to be enforced, the whole investment would be wiped out.

"That would be a confiscation of the property rights, not allowed under the constitution," he insisted.—(Edwin Hartrich.)

Wichita Warehouse Converts Space for an Auto Display

When the Wichita distributor for the Dodge and Plymouth cars planned to hold a sales meeting of all the dealers in his territory, the question of an appropriate meeting place presented itself. Melvyn E. Crowl, manager of the Wichita branch of United Warehouse Company, came to the rescue. Why not hold the meeting right in the warehouse?

Models of the new 1937 cars were to be on display,

a luncheon was to be served, and moving pictures of factory production operations were to be shown. "Sure," explained Mr. Crowl, "the warehouse can take care of all of these demands, and in a satisfactory manner too."

An office having dimensions of approximately 20 by 65 feet was speedily converted into a miniature cinema, with screen and chairs, and provisions for darkening the windows. Adjoining, a section of the warehouse space on the second floor was screened off from the rest of the floor area. Boxes containing Frigidaires served as the partition, giving the effect of "paneled gum" similar to the usual "paneled walnut" of hotel dining rooms.

Here was served a luncheon in cooperation with the Lassen Hotel, the leading hostelry in Wichita, and here also were displayed the shiny new 1937 models.

To this meeting were invited the representative from each of the Chrysler factory units—Plymouth, Dodge, De Sota, and Chrysler.

Philip W. Hiden Dies at 64

Philip Wallace Hiden, who founded and operated the Hiden Storage & Forwarding Co., Newport News, Va., died in a local hospital on Oct. 25 after an illness of five weeks. He was 64 years old.

Long a civic leader in his community, Mr. Hiden has served as the city's mayor and held other public offices, including a membership of the Virginia State Port Commission.

A native of Virginia, Mr. Hiden cut short his studies at William and Mary College and became a telegraph operator. He removed to Newport News in 1899 and entered the wholesale produce business and later operated a wood and timber business, becoming one of the Atlantic seaboard's leading shippers.

During the World War Mr. Hiden shipped 560,000 horses to France, Belgium and Spain on behalf of the British Remount Commission. His warehousing business was launched when in 1922 he acquired storage plants which had been utilized by the Government as an aviation supply base during the war.

Two Bits—(Concluded from page 17)

get here, but we are not even going to try. We are going to follow Nella's suggestion & confine Zella & Liela in a packing box & see what happens. If Zella & Liela battle, we will report the battle, round by round, in a future *Two Bits*.

Maybe Nella will insist on fighting the winner; & maybe the ultimate winner will insist on fighting Ye Ed., in which case Ye Ed. may not survive long enough to tell you about the battle between Zella & Liela & in which case also there would be no more *Two Bits*. Destiny has its own way of eradicating the world's evils.

Meanwhile we got intrigued by Nella's mention of Pupaquassia, Divine Goddess of All the Moth Family. It prompted us to do some research at the Gotham Public Library, where we came across a Latin tome dated 17 B. C. & written in a green substance suspi-

ciously like techtoboracidiethermos, & what did we learn?

We learned that there really was a legendary figure yclept Pupaquassia who was worshipped by the moths of the universe as then known to man. Pupaquassia was supposed to dwell on the apex of an Egyptian pyramid & to feed on silken robes which mysteriously disappeared from the boudoirs of the concubines of the Egyptian Pharaohs. The concubines of course had no knowledge of Pupaquassia & they had a tough time explaining to the Pharaohs where the silken robes was disappearing to. Many of them lost their jobs as a result & Egypt got confronted with an unemployment problem which has since been surpassed only by the one of 1930-19?? in the U. S.

So the Egyptian unemployed had to put their h. h. g. in stge &, they being unable to pay the charges on

a/c they was unemployed, the goods remained in stge for yrs, & thus All the Moth Family was provided with ready provender, & henceforth Pupaquassia became the months' Diet.

Unfortunately, according to the Latin tome we consulted, so many concubines was fired that the silken robe manufacturing industry was pretty hard hit. Fewer & fewer silken robes was produced. Pupaquassia was too proud to munch on anything else & finally she deceased herself through starvation. She was a martyr.

The dust of Pupaquassia's remains is still supposed to be on the apex of the pyramid she inhabited.

So is the record written, down through the ages, probably in techtoboracidiethermos.

You never can tell what you're liable to run across at the Gotham Public Library.

Bouquet Handed to Roosevelt by Arthur Clarendon Smith at Neighborhood Reception

(Washington Correspondence): Arthur Clarendon Smith, vice-president of Smith's Transfer & Storage Co., an intimate of President Franklin D. Roosevelt, was chosen to present to the chief executive a bouquet of flowers as one of the high points of a "neighbors' home coming reception" here on Nov. 6.

More than 250,000 persons turned out to greet the President on his return to take up official duties temporarily put aside while he conducted the campaign that was to make a new record for modern election pluralities.

Mr. Smith, who is president of the Democratic League of the District of Columbia, an organization with



2,000 members, was escorted by Secret Service men to the President's automobile at Union Station plaza, to make the presentation as thousands of voices acclaimed the friendly gesture of Washington's welcome.

President Roosevelt greeted Mr. Smith warmly and the two men exchanged pleasantries for several minutes before the executive took the microphones to express his thanks for the record breaking reception.

Although Washington is voteless, Mr. Smith's political organization, and allied groups, were responsible for placing approximately 50,000 votes in the Roosevelt column, these being the absentee ballots of persons residing in the District of Columbia who retain legal residences in the States from which they came.—(James J. Butler.)

Albany Ranked as Seaport: Rail Rates Lowered

The Interstate Commerce Commission on Nov. 24 recognized Albany, N. Y., as a seaport, placing it on a parity with Philadelphia in the North Atlantic freight rate structure. The Commission ordered the railroads serving Albany to reduce their rates on export, import and coastwise shipments to the Philadelphia level. This gives Albany a 1-cent differential over Baltimore and 2 cents under New York City.

In cases where Albany's domestic rates are lower than the new ones, they will remain lower. The railroads will now have to absorb wharfage and handling charges at

Albany in the same measure as they absorb them at Boston.

The Commission gave Albany parity with Philadelphia in Michigan, Wisconsin, Minnesota and North Dakota. Examiner G. M. Bardwell had recommended Albany be given 3 cents per 100 pounds under Baltimore or 4 cents over Philadelphia in that territory.

Albany was given parity with Philadelphia in territory embracing northern Ohio, northern Indiana and northern Illinois, whereas Examiner Bardwell had recommended parity with Baltimore there.

Albany was given parity with Philadelphia also in central Ohio, central Indiana and southern Illinois, as Mr. Bardwell had recommended.

Albany was also given parity with Philadelphia in another area embracing the southern sections of Ohio, Illinois and Indiana.

The new rates will become effective Feb. 27, 1937.

Under this decision it is believed Albany will be able to bid for the foreign and intercoastal waterborne commerce of Detroit, Grand Rapids and other Michigan centers. At Chicago, it is also believed, Albany would enjoy a parity with Baltimore in consideration of present domestic rates, plus the relief afforded by the absorption of wharfage and handling charges.

\$50,000,000 in Goods Tied Up in San Francisco Public Warehouses Closed by Strike of 1400 Workers

WITH many millions of dollars' worth of freight tied up and all public warehouses, dry and cold storage, closed by the strike of the warehouse workers and the local longshoremen's union, I.L.A., 300 San Francisco business firms combined in November to move freight in 300 railroad cars.

The wholesalers, warehousemen and distributors' committee of the Industrial Association of San Francisco announced that all shipments in these cars and directly consigned to merchants would be handled under the pooling plan and stored in warehouses wherever there is space. The committee declared it would act at once to receive and fill such orders as came to the firms.

No attempt, it was stated, would be made to move goods already in the warehouses, as this would involve the use of strike-breakers. No introduction of strike-breakers was planned, it was asserted, as the employers do not want an industrial war in San Francisco, but peace. Rather, the plan is to relieve the congestion of freight commodities and the stoppage of business.

Notices to employees were posted in the business houses connected with this step, informing them they would be expected to cooperate and that if any objected to doing so, their resignations would be expected.

Warren G. Denton, president of the warehousemen's union, which is affiliated with the International Longshoremen's Association, declared "there will be no interference by union pickets with shipments consigned to firms with which we have no controversy." He said this meant that shipments not consigned to one of the strike-bound warehouses might be handled direct from the railroad cars or freight depots, but that any attempt to introduce strike-breakers or to move goods other than as indicated would be met with "all possible resistance."

Representatives of the teamsters' union declared they would follow their usual policy of refusing to cross picket lines, which means they will not handle goods to concerns or warehouses picketed by other unions.

Approximately 1400 warehouse workers went on strike on Oct. 29. About 900 are still out. They were receiving 62½ cents an hour and working a 44-hour week. Their demand was for 85 cents an hour, a 40-hour week, or five days of eight hours each, besides an

annual vacation of one week with full pay and the right of union members to preference in the selection of employees by employers.

More than 30 grocery warehouses also were closed at the same time by strike of their workers, but peace was effected by them on Nov. 14, when an agreement was reached providing for 70 cents an hour and a 44-hour week.

One public warehouse company capitulated to the union, paying 85 cents an hour, but San Francisco merchants withdrew their patronage, according to L. A. Bailey, secretary of the California Warehousemen's Association, and on Nov. 19 the company joined the other warehouses by closing its doors. This concern is said to have employed fewer than a dozen men.

The warehouse owners have from the first offered to arbitrate all points of difference, the agreement reached to be retroactive with regard to pay, but the strikers persistently and positively refused. The question of arbitration was put to a vote of union members, who overwhelmingly defeated it.

Approximately \$50,000,000 worth of goods is declared to be tied up in the warehouses involved in the strike. The strike of the waterfront workers also affects the warehousemen, but there is not a tremendous amount of goods tied up there, as much of the water freight was cleaned up and transported to the warehouses during a temporary cessation of the longshoremen's strike, according to Secretary Bailey.

"Borderline" Cases Cited as to "Agricultural Employees" Under Federal Social Security Statute

(Washington Correspondence): While the Bureau of Internal Revenue states it as a general rule that persons engaged in the warehousing or trucking of farm products are not "agricultural employees" within the meaning of the Social Security Act, and their employers are therefore not freed from the responsibility of contributing toward old age pension and unemployment insurance funds, it is conceded there are many borderline cases in these two fields of endeavor.

The section which releases agricultural labor from the provisions of the law follows:

"Art. 206 (1) Agricultural Labor. The term 'agricultural labor' includes all services performed—

"(a) By an employee, on a farm, in connection with the cultivation of the soil, the harvesting of crops, or the raising, feeding, or management of live stock, bees, and poultry; or

"(b) By an employee in connection with the processing of articles from materials which were produced on a farm; also the packing, packaging, transportation, or marketing of those materials or articles. Such services do not constitute 'agricultural labor,' however, unless they are performed by an employee of the owner or tenant of the farm on which the materials in their raw or natural state were produced, and unless such processing, packing, packaging, transportation, or marketing is carried on as an incident to ordinary farming operations as distinguished from manufacturing or commercial operations.

"As used herein the term 'farm' embraces the farm in the ordinarily accepted sense, and includes stock, dairy, poultry, fruit, and truck farms, plantations, ranches, ranges, and orchards.

"Forestry and lumbering are not included within the exception."

The requirement that the work be done "by an employee of the owner or tenant of the farm on which the materials . . . were produced," is the key to the situation.

If, it is pointed out, a farmer engages the equip-

Calendar of Coming Events

January

11-14. National League of Wholesale Fresh Fruit & Vegetable Distributors. At the Biltmore, Atlanta.

18-21. Western Fruit Jobbers. At Chicago.

Week of January 24. National Cannery Association in conjunction with National Food Brokers Assn. Possibly in Chicago.

February

2. Allied Distribution, Inc. At Drake Hotel, Chicago.

2. American Chain of Warehouses. At Drake Hotel, Chicago.

2. Distribution Service, Inc. At Drake Hotel, Chicago.

3-6. American Warehousemen's Association. At Drake Hotel, Chicago.

8-11. Mayflower Warehousemen's Association. At Netherland-Plaza Hotel, Cincinnati.

9-13. National Furniture Warehousemen's Association. At Mayflower Hotel, Washington, D. C.

New York State Association of Refrigerated Warehouses. At Rochester.

ment of a trucking company to move his produce to market, and utilizes his own farm hands to load and unload, or to drive the vehicle, the truck owner becomes an "independent contractor." Inasmuch as the farmer exercises complete domain, the employees being under his direction, they become "agricultural labor" while the harvest movement continues.

Following this analogy, a warehouse operator who rents space for storage of farm commodities, pays the Federal tax only on payrolls covering his own employees engaged in entering or removing those commodities.

In both cases instanced, there is actually a trucking and a warehousing operation in which one principal is a non-farm employer; yet to the extent that the workmen of a farmer is employed, they do not come under the Social Security Act.—(James J. Butler.)

Family Album

(Concluded from page 27)

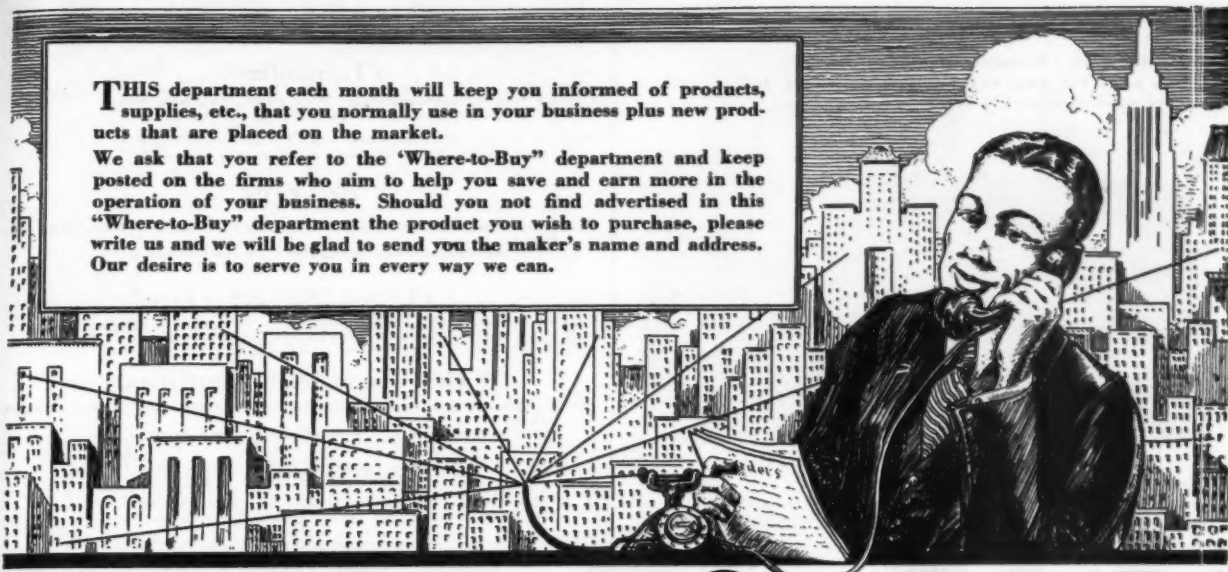
be seen in his office. No deer or moose heads adorn the walls. Unless a man is an excellent observer or a personal friend, he would never know that Mr. Duffy hunts. Instead of game heads, one will find ink wells, ash trays and the like—carved from the smallest tips of bagged game. He is reserved even in his hunting.

Church association work is a secondary extra-business hobby of Mr. Duffy. He is a member of the Knights of Columbus and of the Modern Woodmen of America. Time which isn't occupied at home or in the woods is spent taking part in the affairs of these organizations.

Could his association work be put in this category, it would come first. Of all the organizations to which he belongs, Mr. Duffy takes most interest in the work of the warehousing association. Should one ask what his one universal interest is, Mr. Duffy would undoubtedly reply in one word—"warehousing."

THIS department each month will keep you informed of products, supplies, etc., that you normally use in your business plus new products that are placed on the market.

We ask that you refer to the "Where-to-Buy" department and keep posted on the firms who aim to help you save and earn more in the operation of your business. Should you not find advertised in this "Where-to-Buy" department the product you wish to purchase, please write us and we will be glad to send you the maker's name and address. Our desire is to serve you in every way we can.



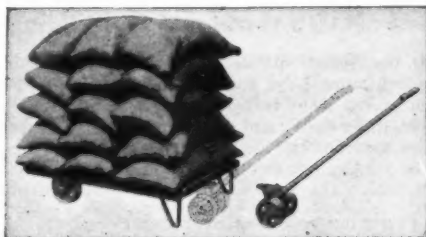
WHERE TO BUY

NEW PRODUCTS

EWC Load Skidder With Detachable Handle

A NEW unit for hand trucking, having a two-wheel detachable jack handle and a two-wheel platform.

Every platform is made mobile with the draw-jack. The platforms are built to handle a weight one or two men would ordinarily pull, which seldom exceeds 2,500 to 3,000 lbs. All wheels are equipped with Hyatt roller bearings for easy pulling,



and while the standard equipment is made with steel wheels, it can also be furnished with easy pulling industrial tires, if preferred.

The lifting pin, being mounted on the draw-jack with a wide bearing plate for turning, makes for easy handling, and also permits the platforms to be handled by electric lift trucks, if desired. The platforms can be obtained in a variety of sizes, with extension boxes and other accessories. The platform is made of welded construction, and the wheels on the skids are 9 in. in diameter, and on the draw-jacks, 7 in. in diameter. The platform height above the floor is 10½ in. Made by the Electric Wheel Co., Quincy, Ill. *Distribution and Warehousing.*

Clamp for Stopping Pipe Leaks

EASILY applied clamps for permanently stopping leaks in pipes, regardless of how large or small, temperature or pressure, are made of metal of high tensile strength, uniform density and hardness. These clamps are tested under a pressure of 3,000 lbs. Maker, M. B. Skinner Co., 3835 W. Sample St., South Bend, Ind. *Distribution and Warehousing.*

WHERE TO BUY

BLOTTERS (Advertising)

Reply-O-Blotter, 225 Varick St., New York City.

Helping DISTRIBUTION Keep Step with Production!



● Many business men believe that merchandise, because it is on shelves or in warehouses of jobbers, distributors, or dealers is SOLD! But—the modern business man knows that until the ultimate consumer buys, his merchandise regardless of distribution, is NOT SOLD!

● The REPLY-O-BLOTTER is an ideal "Prospect-Selector," designed to produce replies. Used as a sales help, it will hammer home your story day after day, week after week—and when the psychological moment arrives, the cleverly BUILT-IN REPLY CARD, requiring no signature and no postage, will be returned as an inquiry or an order.

● Decide now to make a test. Put a few thousand REPLY-O-BLOTTERS on the desks of a few thousand prospects and then watch distribution keep step with production!

For Free Samples Write Direct to

REPLY-O-BLOTTERS
BUY THEM FROM YOUR PRINTER
225 VARICK STREET NEW YORK, N. Y.

BODIES (Van)

Gerstenslager Co.; Wooster, Ohio.

Herman Body Co., 4420 Clayton Ave., St. Louis, Mo.
(See advertisement elsewhere in this issue.)



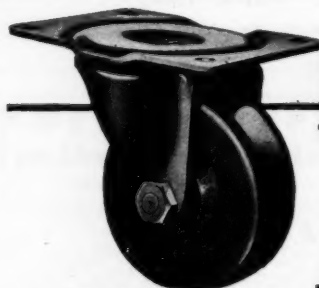
AMERICA'S VAN BODY BUILDERS
Established 1860
THE GERSTENSLAGER CO., Wooster, Ohio

BRINE

Solvay Sales Corp.; 40 Rector St., New York, N. Y.
(See advertisement elsewhere in this issue.)

CASTERS (Truck)

Bassick Co.; 38 Austin St., Bridgeport, Conn.
Fairbanks Co.; 398 Lafayette St., New York, N. Y.



No. 3616 or 3619 steel ball bearing
swivel with Atlasite or Baco composition wheels.
THE IDEAL DOLLIE CASTERS

Bassick
TRUCK CASTERS

Over 456 sizes and
types, from 2" to 10"
diameter wheels—for
every class of service.

**THE BASSICK
COMPANY**
Bridgeport Connecticut

CONVEYORS

Mathews Conveyer Co., Ellwood City, Pa.
(See advertisement elsewhere in this issue.)

CORDAGE

J. E. Fricke Co., 40 North Front St., Philadelphia, Pa. (Flat)
(See advertisement elsewhere in this issue.)

Powers & Co.; 26th & Reed Sts., Philadelphia, Pa. (Flat)
(See advertisement elsewhere in this issue.)

COVERS (Piano)

Canvas Specialty Co., Inc.; 90 Grand St., New York, N. Y.
(See advertisement elsewhere in this issue.)

Fulton Bag & Cotton Mills; Box 1726, Atlanta, Ga.
(See advertisement elsewhere in this issue.)

New Haven Quilt & Pad Co.; 80-86 Franklin St., New Haven, Conn.
(See advertisement elsewhere in this issue.)

Powers & Co.; 26th & Reed Sts., Philadelphia, Pa.
(See advertisement elsewhere in this issue.)

Self-Lifting Piano Truck Co.; Findlay, Ohio.
(See advertisement elsewhere in this issue.)

COVERS (Truck)

(Tarpaulins)

Fulton Bag & Cotton Mills; Box 1726, Atlanta, Ga.
(See advertisement elsewhere in this issue.)

Powers & Co.; 26th & Reed Sts., Philadelphia, Pa.
(See advertisement elsewhere in this issue.)

DOLLIES

International Engineering, Inc., 1145 Bolander Ave., Dayton, Ohio
(See advertisement elsewhere in this issue.)

EXTINGUISHERS (Fire)

Solvay Sales Corp.; 40 Rector St., New York, N. Y.
(See advertisement elsewhere in this issue.)

FANS (Industrial Ventilation)

International Engineering, Inc., 1145 Bolander Ave., Dayton, Ohio.
(See advertisement elsewhere in this issue.)

FURNITURE TIE

J. E. Fricke Co., 40 North Front St., Philadelphia, Pa.
(See advertisement elsewhere in this issue.)

INSECTICIDES

Barrett Co.; 40 Rector St., New York, N. Y.

Liquid Carbonic Corp., 3165 So. Kedzie Ave., Chicago, Ill.
(See advertisement elsewhere in this issue.)

White Tar Co.; Dept. W., Belleville Turnpike, Kearny, N. J.
(See advertisement elsewhere in this issue.)

NAPHTHALENE FLAKES

Barrett Co.; 40 Rector St., New York, N. Y.

White Tar Co.; Dept. W., Belleville Turnpike, Kearny, N. J.
(See advertisement elsewhere in this issue.)

PADS (Canvas Loading)

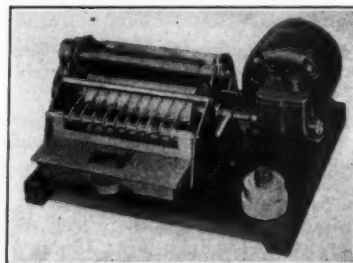
Canvas Specialty Co., Inc.; 90 Grand St., New York, N. Y.
(See advertisement elsewhere in this issue.)

Fulton Bag & Cotton Mills; Box 1726, Atlanta, Ga.
(See advertisement elsewhere in this issue.)

Label Paster Cuts Costs

CALLED the Whirlwind electric label paster, this machine represents something entirely new. It will operate successfully on extra light bodied glues, will handle all types of paper labels, light cardboard and some types of cloth.

The entire machine can be instantly dismantled for cleaning, the glue and feed rollers being removed through grooves in the endplate in which they are mounted. Oilless phosphor bronze



bearings insure perfect alignment of the rollers at all times and make for silent operation and long life. Drive is by means of a quiet, geared head motor, eliminating belts and pulleys.

A feature is the scraper knife which requires no adjustment whatever and yet automatically provides the proper amount of glue at all times.

The glue is applied to the labels in light narrow strips thus reducing the amount of glue consumed to a minimum. There is no tendency for the labels to curl. Maker, Scientific Filter Co., 1 Franklin Square, New York City. Distribution and Warehousing.



POSITIVE METHOD OF INSECT CONTROL!

No insect, its eggs, larvae or pupae can survive fumigation with Proxate. Penetrates porous coverings... no odor, taint or residue. Not dangerous to humans... non-flammable... non-explosive. Easy to use. Write for Proxate Booklet
THE LIQUID CARBONIC CORPORATION
3165 South Kedzie Avenue, Chicago, Illinois



PROXATE

IRON HORSE FURNITURE PADS



Reg. U. S. Pat. Off.

Always improving values through nineteen years of honest service.

Cut sizes 36 x 72, 54 x 72, 72 x 72, 80 x 72.

Write for prices and samples.

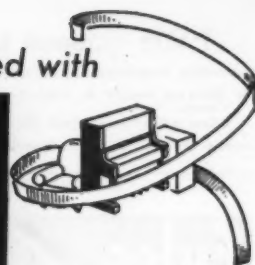
Van Linings
Grand Covers Tietape



CANVAS SPECIALTY CO., Inc. 90 Grand St., N. Y. C.

You must be satisfied with

**BULL DOG
BLUE
STREAK**
FLAT CORDAGE



It's
Guaranteed

to be the **BEST FURNITURE TIE** you ever used... or return it for full credit.

Bull Dog BLUE STREAK is Strong—over 1000 lbs. Tensile Strength: Soft—cannot scratch, burn or stretch: Flexible—ties and unties easily: Economical—wears indefinitely. Pays for itself many times over by lessening damage.

Stays Flat—Cannot Curl—2 inches wide.

Insist on the best... it costs you less—Specify **Guaranteed Bull Dog BLUE STREAK Flat Cordage.**

THE J. E. FRICKE CO.

40 North Front Street, Philadelphia, Pa.

Mills: Hulmeville, Pa.

Send for Free Samples and Low Prices

LAST CALL!!

For our 25th Anniversary SPECIAL. Your last chance to get a DREADNAUGHT "extra-featured" pad absolutely FREE. Receive one of our regular "extra-featured" pads, having hundreds of 3" squares, one-piece felt filling and a heavy welt-edged binding on all four sides, with each order of 2 dozen DREADNAUGHT Cross-Stitched Pads.



36 x 72 Inches
54 x 72 Inches
72 x 72 Inches
72 x 80 Inches

cut size @ \$12.50 Dozen
cut size @ \$18.50 Dozen
cut size @ \$22.50 Dozen
cut size @ \$23.50 Dozen

As the year draws to a close, so must this exceptional offer! Take advantage of this last call. The dead-line is December 31, 1936.

To all our very good friends and associates Merry Christmas and a very Happy New Year

New Haven Quilt & Pad Co.

82-86 Franklin Street

New Haven

Connecticut

Radio
Covers

Piano
Covers

Scotch
Dundee

Lift
Harness

LAST CALL!!



PADS (Canvas Loading)—Continued

Louisville Bedding Co.; Preston & Market Sts., Louisville, Ky.
New Haven Quilt & Pad Co.; 80-86 Franklin St., New Haven, Conn.
(See advertisement elsewhere in this issue.)
Powers & Co., 26th & Reed Sts., Philadelphia, Pa.



Fulco

quilt-edge

FURNITURE PADS and TARPAULINS

The best buy in Furniture Pads on the market today! FULCO is the quality pad with our special non-lump filler and reinforced Fulco Gilt Edge webbing ends. You will find FULCO PADS a real economy for both truck and warehouse use—give better protection—last longer.

Write today for 1936 prices on FULCO PADS, FULTEX and SHUREDRY TARPAULINS (standard weather protection equipment for open trucks), REFRIGERATOR COVERS, RADIO COVERS, WIPING CLOTHS, BURLAP, and WRAPPING TWINE.

Fulton Bag & Cotton Mills

Manufacturers Since 1870

ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS BROOKLYN NEW ORLEANS KANSAS CITY, KAN.

PIONEER VAN PADS

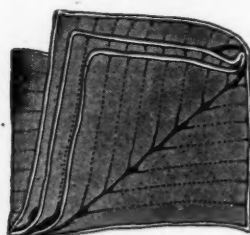


Are more economical. Safer and the surest travel insurance.

Made of new cotton and jute. Covered with heavy cotton drill and zig zag stitched to prevent slipping and packing.

In addition to Van Pads there are form fitting Pioneers to fit all pieces of furniture. Cut also 72"x80" Pioneer Van Pads \$23.00 per doz.

**LOUISVILLE BEDDING
COMPANY, Inc.**
Preston & Market Sts.
LOUISVILLE, KY.



POWCO FURNITURE PADS

CUT SIZE

72 x 36"
72 x 54"
72 x 72"
72 x 80"

Quality pads, extra heavy cover, bound on all four sides, which means twice the service; lock-stitched, not chain stitched, prevents raveling.

Filler laid one way, stitched the opposite, prevents "thinning out" or "jumping." Made with cotton filler gives extra thickness and permanent body.

Furniture Tape, 1½" wide, Rolls of 27 yards.

Tarpaulins
Truck Covers
Awnings

POWERS & CO. REED ST. 25TH TO 26TH
PHILADELPHIA

PAPER (Moth Proofing)

White Tar Co.; Dept. W., Belleville Turnpike, Kearny, N. J.
(See advertisement elsewhere in this issue.)

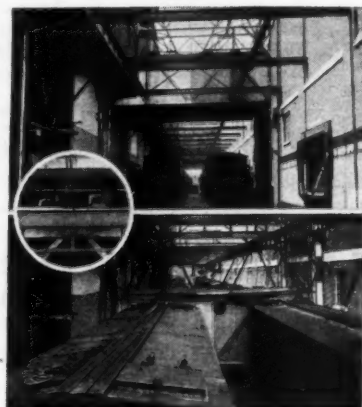
PAPER (Tar)

White Tar Co.; Dept. W., Belleville Turnpike, Kearny, N. J.
(See advertisement elsewhere in this issue.)

Novel Lift Bridge for Inter-Plant Traffic

THE illustration herewith shows the unique manner in which the Geo. A. Hormel Co., Austin, Minn., solved the problem of traffic between buildings separated by a railway spur.

When no freight cars are on the siding, the enclosed bridge is lowered into position to permit trucking and other traffic



between the adjoining plants. When freight cars enter the spur, the bridge is lifted on a structural steel support high enough to clear the tops of the cars.

Fabricated of structural steels, and enclosed with corrugated sheet steel to permit communication under all weather conditions, this bridge is raised and lowered by the simple installation of a P&H 3-ton hoist, base mounted inside the building to the left. Operated by simple push-button controls, the bridge may be moved at a moment's notice. This ingenious arrangement is a striking example of the many ways in which P&H hoists are being used in light elevator service. *Distribution and Warehousing.*

Ice Slingers for Car Icing

SINCE the development of early models of Link-Belt snow-ice slingers for car icing, many new uses have been found. The manufacturers state that this method of icing can be employed



wherever the use of crushed ice is considered practical in the refrigeration of almost any product either in storage or in transit.

Several new models have been developed for top-icing green vegetables, fish, etc. A 16-page catalog describes these new models. Maker, Link-Belt Co., 307 No. Michigan Ave., Chicago. *Distribution and Warehousing.*

Safe!

MOTH PROTECTION

No need to worry about dangerous poisonous gases—you get *safe* protection as well as *positive* protection when you use

WHITE TAR NAPHTHALENE BALLS or FLAKES

Write for Prices Today



THE WHITE TAR COMPANY
OF NEW JERSEY, INC.

(A Subsidiary of the Koppers Co.)

Belleville Turnpike

Kearny, N. J.

PIANO DERRICKS AND TRUCKS

Fairbanks Co.; 398 Lafayette St., New York, N. Y.
Self-Lifting Piano Truck Co.; Findlay, Ohio.

★ For All Star Performance The Buckeye Sill Piano Truck



Also manufacturing X-75 and Balance Refrigerator Trucks.

Self-Lifting Piano Truck Co.
Findlay, Ohio
Manufacturers of Trucks Since 1901

REFRIGERATION (Truck Body)

Fruehauf Trailer Co., 10940 Harper Ave., Detroit, Mich.
International Harvester Co. of Am.; 606 S. Michigan Ave., Chicago, Ill.
Liquid Carbonic Corp., 3165 S. Kedzie Ave., Chicago, Ill. (Carbon Dioxide)
(See advertisement elsewhere in this issue.)
Mack Trucks, Inc., Anable Ave. & 34th St., Long Island City, N. Y.

TIRES (Industrial Truck)

General Tire & Rubber Co.; E. Market St., Akron, Ohio.
Goodrich Rubber Co., B. F.; Akron, Ohio.
Goodyear Tire & Rubber Co., 7144 E. Market St., Akron, Ohio.

Distribution and Warehousing, December, 1936

TIRES (Motor Truck)

General Tire & Rubber Co.; E. Market St., Akron, Ohio.
Goodrich Rubber Co., B. F.; Akron, Ohio.
Goodyear Tire & Rubber Co., 7144 E. Market St., Akron, Ohio.

TRAILERS (Motor Truck)

Fruehauf Trailer Co., 10936 Harper Ave., Detroit, Mich.
General Motors Truck Co.; Pontiac, Mich.
Herman Body Co., 4420 Clayton Ave., St. Louis, Mo.
(See advertisement elsewhere in this issue.)

TRUCKS (Hand)

Fairbanks Co.; 398 Lafayette St., New York, N. Y.
(Lift, platform and stavedore)
International Engineering, Inc., 1145 Bolander Ave., Dayton, Ohio.
Self-Lifting Piano Truck Co.; Findlay, Ohio. (Special plane)

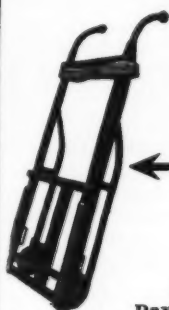
TRUCKS (Refrigerator)

International Engineering, Inc., 1145 Bolander Ave., Dayton, Ohio.
Self-Lifting Piano Truck Co.; Findlay, Ohio.

TRUCKS

Refrigerator—Platform and Trailer

Deliver your Refrigerators
on Rubber



Type x—\$17.00
Type y—18.50

Ask for
Catalogue



International Engineering Inc.
Dayton, Ohio 15 Park Row, N. Y.

WHEELS (Industrial Truck)

Fairbanks Co.; 398 Lafayette St., New York, N. Y.
International Engineering, Inc., 1145 Bolander Ave., Dayton, Ohio.

WORK SUITS AND UNIFORMS

Hart Mfg. Co.; 16 E. Livingston St., Columbus, Ohio.

UNIFORMS

Adopt a standardized uniform
for your men—they cost less
than ordinary clothes.

UNUSUAL ADVERTISING

Write Dept. No. 8 For Our
Catalog, It's Free

**HART UNIFORMS ARE
BUILT FOR SERVICE**

HART MFG. CO.
COLUMBUS, OHIO





"Andy Says"

FROM a strictly business standpoint, warehousing in all of its branches has experienced a better year in 1936 than in any of the four preceding years. Of course, there are some individual firms which, for one reason or another, have failed to show an increase this year; but from our travels these cases have been so in the minority that they are not worth considering.

Reports, such as one just received from the Southwest Warehouse & Transfermen's Association for the week ended Nov. 28, bear out this statement; and those who have not read it should write A. E. Brooks, Sec.-Mgr., 412 T & P Passenger Station, Fort Worth, for a copy.

This association held its annual meeting during Thanksgiving week and the spirit of optimism which prevailed seems to have been the greatest for many years past. Elmer Erickson, the Chicago storager and a former general president of the American Warehousemen's Association, in part said:

"Storehouses and warehouses have always filled an economic need, and their existence has ever been fully justified. If we will keep our warehouses progressively modernized, care for property as though it were our own and render valuable service to the best of our ability, we need have no fear of the industry's slipping out of the picture, or any serious dislocations resulting from changes in methods of distribution, vehicles of distribution, or other progressive change. In looking forward, we must be alert to improve methods and reduce costs. . . . Changing marketing methods have done much to open the way for new business. Recent legislation, although revolutionary and very disturbing to marketing methods and our own industry as well, offers unknown opportunities. Whether such legislation be good or bad, it bears very careful study and watching."

Referring to the Robinson-Patman Act, he said:

"It is a Congressional statement of the public policy accompanied by sufficiently specific standards of judgment for the guidance of the Federal Trade Commission and the Courts in applying that policy, with the exception of some minor instances."

SPEAKING of prosperity in terms of car loadings *Traffic World* of Nov. 28 shows the following comparisons for all railroads over the past three years:

1934—585,034 — 1935—629,728.

—and the total for 1936—to the week ended Nov. 14—784,672.

What figure it will reach by the end of December is problematical but, judging from gains already made over 1935, the 1936 figure will certainly show the greatest of all for many years past. The 1937 expectancy is even greater than 1936.

Much of this business will go through public warehouses. Hundreds of warehouses have already received spot stocks of products they had never previously stored. Other hundreds are finding old customers returning to the public storer for services which hadn't been needed for a long time past. Manufacturers are moving their executives into new locations, and for various reasons entire personnels of plants plus the plant equipment have recently been removed to distant locations.

In other words, things are happening today which were dormant during the depression; and in nearly all of these transactions or moves, the warehouseman plays an important part. This fact, plus our present method of having "D and W" delivered by Western Union messengers into the hands of these men who determine the city and warehouse which shall carry stock or who shall do the moving of representatives, assures the delivery and attention of the recipients.

You, Mr. Warehouseman, need the aid of "D and W" more today than ever before to get your share of this business—so mail your advertising reservation for the 1937 Directory issue at once, before it is too late for us to accept your copy. Forms close soon after Dec. 20. Remember too that only advertisers will be given complete listings in this next edition.

In conclusion may the "D and W" staff wish all its readers a Very Merry Christmas and a Happy and Prosperous 1937.

"Andy"

N. F. W. A. Sketches

At top of news columns on pages which follow will be found a series of caricature drawings. They are of delegates who attended the summer convention of the National Furniture Warehousemen's Association at Wawasee, Ind., in July, and were made by Lew Merrill, Chicago newspaper artist.

Other N.F.W.A. caricatures appeared in the October and November issues.

McCall New President of Southwest Group

THE Southwest Warehouse & Transfermen's Association at its annual meeting, at the Adolphus Hotel in Dallas on Nov. 23-25, elected as president Hugh S. McCall, president of Terminal Warehouse & Transfer Co., Inc., Shreveport, La.

General vice-presidents chosen are L. G. Riddell, president of Union Transfer & Storage Co., Houston; and R. E. Moss, president of Austin Fireproof Warehouse Co., Austin.

State vice-presidents are: for Arkansas, Robert Black, Black Transfer Co., Eldorado; for Oklahoma, H. S. Brimm, secretary of Red Ball, Inc., Oklahoma City; for Louisiana, I. A. Faulk, president of Faulk-Collier Bonded Warehouses, Inc., Monroe; and for Texas, Robert Q. Bekins, owner of Bekins Van & Storage Co., Dallas.

Mr. McCall succeeds W. W. Warren, vice-president of O. K. Transfer & Storage Co., Oklahoma City, who becomes a member of the board of directors. Other directors elected are Roy Binyon, president of Binyon-O'Keefe Fireproof Storage Co., Fort Worth; William I. Ford, president of Interstate Fireproof Storage & Transfer Co., Dallas; Ben Silberman, secretary Houston Central Warehouse Company, Houston; S. J. Beauchamp, president Terminal Warehouse Co., Little Rock; and Harry Leonard, president of Merchants Transfer & Storage Co., San Antonio.

Cole Re-elected President of the Missouri W. A.

FRANK M. COLE, president of Radian Warehouse Co., Kansas City, was re-elected president of the Missouri Warehousemen's Association at the group's annual meeting, held in St. Louis on Oct. 16 and 17.

The vice-presidents chosen are Wilfred Long, manager S. N. Long Warehouse, St. Louis, for the merchandise division; F. R. Meeker, Terminal Warehouse of St. Joseph, for the cold storage division; and George C. Dintelmann, president Ben A. Langan Storage & Van Co., St. Louis, for the household goods division.

F. H. Floyd, Kansas City, continues as secretary-treasurer; and the directors elected are W. A. Sammis, W. E. Murray Transfer & Storage Co., Kansas City; E. M. Hansen, Brown Transfer & Storage Co., St. Joseph; F. E. Orcutt, Orcutt Storage, Packing & Moving Co., St. Louis; F. E. Keene, Columbia Terminals Co., St. Louis; and F. B. Shunk, Joplin Transfer & Storage Co., Joplin.

NEXT MONTH

A detailed report of the distributors' conference at the Hotel Astor in New York on Dec. 7 and 8.

WHEN WRITING ADVERTISERS MENTION DISTRIBUTION AND WAREHOUSING

BIRMINGHAM, ALA.

1890 — 1936

HARRIS

Over 55
Years of
Service

Transfer & Warehouse Co.

8 South 13th St., Birmingham

— FIREPROOF WAREHOUSES —

Merchandise and Household Goods

• STORAGE
• DISTRIBUTION

• CARTAGE
• FORWARDING

Pool Cars Handled

BIRMINGHAM, ALA.

STRICKLAND Transfer & Warehouse Co.

1700-1702 2nd Ave. So.

General Merchandise Storage and Distribution
Pool Car Service a Specialty—Motor Truck Service
Centrally Located—Free Switching from All R.Rs.

BIRMINGHAM, ALA.



MEMBER
NATIONAL
WAREHOUSEMEN'S
ASSOCIATION

WITTICHEN

Transfer & Warehouse Co.
Fireproof Warehouse
Household Goods and Merchandise
Agents: Aero Mayflower Transit
Company
Member of Allied Distribution, Inc.



BONDED
WAREHOUSE
OFFICIAL SEAL

MOBILE, ALA.

R. P. POPE, Proprietor

COMMERCIAL TRANSFER and STORAGE CO.

A complete merchandise transfer and pool car service
Storage space for rent, correspondence invited


MOBILE, ALA.

Merchants Transfer Company

HEAVY HAULING—STORAGE

Pool Cars and General Merchandise—Bonded
Authorized Transfer Agents
A.T.&N., C.M.&N., L.&N., M.&O. &
Southern Railroads. Clyde Mallory S/S Co.

MONTGOMERY, ALA.




MEMBER
NATIONAL
WAREHOUSEMEN'S
ASSOCIATION

Alabama Transfer & Warehouse Co.

Cor. N. Perry & Pollard Sts.

BONDED — FIREPROOF —
WAREHOUSE
STORAGE & DISTRIBUTION

Members N.F.W.A. — A.W.A. — So.W.A. —
A.C.W. — A.V.L.



BONDED
WAREHOUSE
OFFICIAL SEAL

MONTGOMERY, ALA.

MOELLER TRANSFER & STORAGE CO.

210-220 COOSA STREET

Merchandise and Household Goods
Low Insurance Rate Bonded Trucking Service
Pool Car Distribution

Members: A.W.A., N.F.W.A., So. W.A.

PHOENIX, ARIZONA

H. W. CHAMBERS, President
Chambers Transfer and Storage Co.
 301 South Fourth Avenue
 Storing and Packing Moving and Shipping
 Warehousing and Distribution service for merchan-
 dise and furniture.
 Sprinklered warehouse—Insurance rate 46c.
 Member—N. F. W. A.

PHOENIX, ARIZONA

The Lightning Moving &
 Storage Co.
**TRANSFER
 AND
 STORAGE**

Storage capacity 68,000 sq. ft. General receiving and
 forwarding agents. Pool car distribution our specialty.

TUCSON, ARIZONA

Tucson Warehouse & Transfer Co.

POOL CAR DISTRIBUTORS

FIREPROOF STORAGE

110 East Sixth Street

Tucson, Arizona

FORT SMITH, ARK.

W. J. ECHOLS, Jr. President
W. J. ECHOLS Vice-President
J. MONTAGUE WILLIAMS Manager
ARKANSAS WAREHOUSE COMPANY
 General Merchandise Storage. Forwarding.
 Pool Car Distribution.
 55,000 Square Feet Floor Space.
 Modern Fire Proof Building. Sprinkler Equipped.
 Lowest Insurance Rate.
 On St. Louis, San Francisco Railroad Reciprocal Switching.



LITTLE ROCK, ARK.

**Commercial Warehouse Co.**

801-7 East Markham Street

A Complete Branch House Service
 Fireproof Sprinklered • • Low Insurance
 Private Railroad Siding • • Quick Service

REPRESENTED BY
ALLIED DISTRIBUTION INC.
 • CHICAGO
 1022 N. MICHIGAN AVE.
 TEL. MONROE 5751
 • NEW YORK
 11 WEST 42ND ST.
 TEL. PENN. 4100

LITTLE ROCK, ARK.

Arkansas' Largest Warehouse
 Merchandise—Household Storage



NEW TERMINAL WAREHOUSE CO.
 LITTLE ROCK ARKANSAS

Member American Warehousemen's Association
 American Chain of Warehouses.

•
 Absolutely
 Fireproof
 Low
 Insurance
 Rates
 Pool Car
 Distribution
 Compartments
 for household
 Goods
 •



LONG BEACH, CAL.

STORAGE-TRUCKING
 DISTRIBUTION
 FREIGHT-MACHINERY
 TRUCK CRANES
 RIGGING



467 GOLDEN AVE. • P.O. BOX 237

LOS ANGELES, CAL.

PLAY SAFE—
CONSIGN
SHIPMENTS
TO BEKINS

1335 S. Figueroa St.
BEKINS
VAN & STORAGE CO.
 OPERATING WAREHOUSES
 IN PRINCIPAL CITIES OF CALIFORNIA

LOS ANGELES, CAL.

EFFICIENT WAREHOUSING
and DISTRIBUTION**CALIFORNIA WAREHOUSE CO.**

837 TRACTION AVE.



Specialist in Food Distribution

Sprinklered Concrete
 Building
 Central Location
 Spur Tracks
 Low
 Insurance
 Cartage
 Service
 Merchandise
 Exclusively

LOS ANGELES, CAL.

"Sales Minded Service"

•CITIZEN'S WAREHOUSE•

DISTRIBUTION AND STORAGE

1001 East First Street Los Angeles, California

"Not merely a 'Point of Storage and Distribution' for your merchandise,
 but Active Dependable Citizens 'Sales Service.' A real Business Builder"

LOS ANGELES, CALIF.

J. A. CLARK DRAYING COMPANY

Complete and efficient service in distribution, delivery
 or storage of merchandise.

Franchise carrier between Los Angeles Harbor and the city of
 100 Howard St., Los Angeles. 125 Santa Fe Ave.,
 SAN FRANCISCO Established 1875 LOS ANGELES

LOS ANGELES, CAL.

AN "ASSOCIATED WAREHOUSE"

DAVIES WAREHOUSE COMPANY

GENERAL OFFICES: 164 SOUTH CENTRAL AVE.

First merchandise warehouse in Los Angeles—and STILL
 the FIRST . . . Established 1893 . . . MORE THAN
 ORDINARY SERVICE . . . We invite inquiries relative to
 your warehouse problems.

MEMBERS: A.W.A. SINCE 1898 . . . C.W.A. . . L.A.W.A.

LOS ANGELES, CAL.

FIDELITY

VAN and STORAGE



1836 Arapahoe St.—Near Washington Blvd.

Beverly Hills—Westwood—Wilshire District—Hollywood

Fireproof Warehouse in the
 Heart of the Residence District
 Distribution Consolidated Cars
 of Household Goods Solicited
 We Reelocate



N.F.W.A.—(See page 49)



L. H. Tanner,
Detroit

Anaconda Subsidiary's Use of Warehouses

(Continued from page 13)

a soft paste, containing 13 per cent oil; and an all-purpose soft paste, containing 9 per cent linseed oil and 2 per cent turpentine.

The white lead is obtained through a process unique and different from any other used at the present time. It is interesting to know that this is the only plant in the world using the process invented by Elmer Ambrose Sperry—a method which produces a white lead that is unusually white and pure. Mr. Sperry, it will be remembered, was the inventor of the Lindberg beacon, as well as the Sperry rail detector, the latter a device by means of which developing defects in the interior of street-car rails and steam-road rails may be detected and located, thus affording greater safety over the lines thus inspected. He invented also the Gyro compass, and the Gyro pilot for steering ships, the Automatic gyro pilot for stabilizing airplanes, and many other navigational devices.

The Sperry process is a combination of electrolysis and precipitation. It is carried on in a cell in which have been placed a lead anode and an iron cathode separated by a porous diaphragm. Each electrode is surrounded by its specific solution which is circulated around its electrode. As the lead dissolves the corrosion is precipitated, later to be filtered, washed, and dried to powdered form. Then comes the grinding in linseed oil and the packing of the various classifications.

The lead to be processed comes to the East Chicago plant in blocks weighing four tons each—raw, crude pig lead—and measuring approximately 4 by 4 by 1 feet. They come from the company's smelting furnaces in Utah aboard gondola cars. For handling convenience each block has an iron hook imbedded in its center, placed there while the metal was in a semi-molten condition. When received at the East Chicago plant, a 12-ton overhead traveling crane hooks up these heavy blocks and transfers them from the cars to the melting kettle.

Several hundred thousand tons of lead have been

(Continued on page 52)

LOS ANGELES, CAL.

1030 S. Vermont Avenue, Los Angeles

LYON

VAN & STORAGE

SERVES CALIFORNIA

San Francisco
Oakland
Fresno
San Bernardino
Glendale
Hollywood
Los Angeles
Pasadena
Long Beach
San Diego

Let
Lyon
CARE FOR YOUR
GOODS

LOS ANGELES, CAL.



Offices for Rent
Telephone and
Secretarial Service
Sub Basement for
Cool, Dry Storage

METROPOLITAN WAREHOUSE CO.

Merchandise Warehousing
and Distribution

U. S. Customs Bonded

Reinforced Concrete Sprinklered Building

Centrally Located in Metropolitan Area

Fire Insurance Rate 11.7 Cents

1340-1356 EAST SIXTH STREET

LOS ANGELES

MEMBER

ALLIED DISTRIBUTION, Inc.

1525 Newberry Ave. 11 West 42nd St.
Chicago, Ill. New York City

LOS ANGELES, CAL.

Overland Terminal Warehouse

Ninth and Alameda Sts.

General Merchandise Storage

U. S. Customs Bonded Storage

Cool Room Accommodations

"Vacufume" Process of Fumigation

MANAGED AND OPERATED BY

CROOKS TERMINAL WAREHOUSES

CHICAGO NEW YORK KANSAS CITY
419 W. Harrison St. 76 Beaver St. 1104 Union Ave.

CALIFORNIA'S MOST MODERN WAREHOUSE
SERVED BY THE UNION PACIFIC

LOS ANGELES, CAL.

MERCHANDISE
STORAGE AND
DISTRIBUTION
DRAYAGE
CYANIDE FUMI-
GATION
BROKERS' OFFICES
SECRETARIAL
P.B.X.
FINANCING
SERVICE



Pacific Commercial Warehouse, Inc.
923 East Third St. Los Angeles, California
SPECIALIZING IN STORAGE AND DISTRIBUTION
OF FOOD PRODUCTS

Represented by NATIONAL WAREHOUSING SERVICE
519 W. Roosevelt Road Chicago, Ill.

LOS ANGELES, CAL.

We Solicit Your Shipments and
Pool Car Distribution

PRUDENTIAL STORAGE AND MOVING CO.

1616 SOUTH VERMONT AVE.
FIREPROOF WAREHOUSE FOR HOUSEHOLD GOODS
Members: California Van & Storage Association
National Furniture Warehousemen's Association

LOS ANGELES, CAL.

1817-1855 INDUSTRIAL STREET

Star Truck & Warehouse Co.

COMPLETE FACILITIES EFFICIENT SERVICE
Storage Distribution Drayage

Represented by Distribution Service

340,000 Square Feet
New York



50 Motor Trucks
Chicago San Francisco

LOS ANGELES, CAL.

W. E. TEAGUE, Pres.
B. F. JOHNSTON, Gen. Mgr.

UNION TERMINAL WAREHOUSE

General offices, 737 Terminal St.

Free and U. S. Customs bonded storage. The largest, most complete and efficient Warehouse and Distribution Service in the West. Insurance Rate as low as 11.5 cents per \$100 per year. Daily motor truck service to all parts of the city and Los Angeles Harbor.

LOS ANGELES, CAL.

Make Westland Warehouses

Your Distribution Headquarters
in So. California

Member, A. W. A.,
C. W. A., L. A. W. A.

Write for Booklet

L. A. Junction Ry.
Service

Westland
Warehouses, Inc.
4814 Loma Vista Ave.,
Los Angeles, Calif.
Room 1305
38 So. Dearborn St.
Chicago, Ill.



OAKLAND, CAL.

OAKLAND WAREHOUSE TERMINALS

20th & CAMPBELL STS.

OPERATED BY MERCHANTS EXPRESS CORP.

SAME OWNERSHIP AS

Southern Pacific Terminal Warehouse

4TH & BERRY STS., SAN FRANCISCO

OPERATED BY WALKUP DRAYAGE & WAREHOUSE CO.

Modern buildings with lowest insurance rates and largest fleet of motor equipment in the bay area.

Most complete and efficient transbay service. Exclusive contracts all railroad store door services.

**STORAGE & POOL CAR DISTRIBUTION OF
FURNITURE AND MERCHANDISE**

MEMBER AWA

N.F.W.A.—(See page 49)



Arthur S. Blanchard
Rochester, N. Y.

(Continued from page 51)

shipped in this way in the open gondola cars without the loss of a single pound. This is somewhat remarkable in view of the fact that formerly when this raw metal was shipped in box cars in the form of bars weighing 100 pounds, this form of shipment not only involved greater handling cost but the element of theft and loss was a continual source of annoyance.

The zinc oxide is manufactured at this plant by two different processes—the American, which produces the oxide direct from the ore; and the French, which makes it from zinc metal Ore for the American process is shipped to the East Chicago plant from the Montana mines in box cars in quantities ranging from 50 to 60 tons. The zinc metal for the French process comes from the company's electrolytic zinc plant in Montana. This is 99.99 per cent pure zinc and is in the form of "fingers" (five in number), four being parallel to one another and the fifth across the end, being made in this form for convenience in handling, as they can easily be separated for charging the furnaces. The process consists in burning of zinc vapor obtained from the distillation of high-grade metallic zinc in a muffle furnace. The zinc oxide thus formed and suspended in hot air is conveyed through cooling flues and later filtered, then collected in hoppers, and packed in wooden barrels and for small quantities in paper bags.

Naturally, with a large output some provision had to be made for the storage of stock awaiting shipment. For this reserve stock the East Chicago plant has three warehouse buildings. These are of steel construction, the white lead warehouse being 200 by 50 feet, with a storage capacity of some 2,500 tons of white lead. There is installed a three-ton overhead traveling crane with a special device for handling four barrels at a time. A specially designed barrel floor-truck is also always within easy reach for shifting the position of any barrels, as they must not be rolled. For the zinc oxide there are two warehouses, one 192 by 40 and the other 148 by 40 feet, providing capacity for storage of 200 tons packed in barrels and bags.

For shipping by rail, the white lead warehouse is served by a siding with capacity for seven cars, while ten cars may be accommodated on the siding provided at the zinc oxide warehouses.

At the public warehouses the company endeavors to keep sufficient stock for approximately eight weeks.

(Continued on page 55)

SAN FRANCISCO, CALIF.

J. A. CLARK DRAYING COMPANY

Complete and efficient service in distribution, delivery or storage of merchandise.

100 Howard St.,
SAN FRANCISCO

Established 1875

125 Santa Fe Ave.,
LOS ANGELES

SAN FRANCISCO, CAL.

CONSIGN TO

DE PUE

WAREHOUSE CO.

FIRST

AND

BRANNAN

SAN FRANCISCO, CALIF.

FARNSWORTH & RUGGLES

(Established in 1859)

109 DAVIS STREET

WAREHOUSING GENERAL MERCHANDISE
Pool Car Distribution Motor Truck Fleet
Terminal at First, Brannan and Federal Streets
In the heart of the shipping district

SAN FRANCISCO, CALIF.

GIBRALTAR WAREHOUSES

201 CALIFORNIA ST.

OPERATED IN CONJUNCTION WITH
OVERLAND FREIGHT TRANSFER CO.

AND
TILDEN SALES BUILDING

SAN FRANCISCO, CALIF.

CONSIGN TO

THE HASLETT WAREHOUSE CO.

280 Battery St., San Francisco

Operators of the most complete warehouse and distribution system in the San Francisco Bay area.

STORAGE—CARTAGE—COLD STORAGE (OAKLAND)
FIELD WAREHOUSING—FAST TRANSBAY DELIVERY SERVICE

E. M. HASLETT, President

Member American Warehousemen's Assn.
Member American Chain of Warehouses, Inc.

SAN FRANCISCO, CAL.



**Complete
Warehousing
Service**

for
General Merchandise
Liquors - Drugs

Draying, Pool Car Distribution, Office Accommodations
and Telephone Service

SAN FRANCISCO WAREHOUSE COMPANY
625 Third St. SÜtter 3461

Member: American Warehousemen's Association
Distribution Service, Inc.

SO. PASADENA, CAL.

EST. 1913

**ONEONTA
TRANSFER AND STORAGE**

812 FREMONT AVENUE

Coast to Coast Motor Van Service

Complete Moving and Storage Facilities

DENVER, COL.

**North Denver Transfer
and Storage Company**

Modern Merchandise Warehouses

A dependable agency for the
distribution of merchandise
and manufactured products.

Storage Cartage
Forwarding Distributing



Centrally Located

Free Switching

Office: 2016 Blake Street, DENVER, COLORADO

DENVER, COL.

We offer a complete service—Merchandise and
Household Goods Storage, Pool Car Distribution,
Moving, Packing and Forwarding.

We also operate the Weicker Transportation Co., a
statewide daily motor freight service under regulation of
the Public Utilities Commission.

Connections with Interstate Truck Lines to
Principal Cities.

Burglar Proof Silver Vaults, Cedar Lined Rug
Vault, Fumigating Vault, Private Lockers

The WEICKER TRANSFER & STORAGE CO.

1700 Fifteenth Street

DENVER COLORADO
Member of N. F. W. A.—A. G. W.—A. W. A.

PUEBLO, COLO.

**BURCH WAREHOUSE AND
TRANSFER CO. INC.**



General Office and Warehouse

200 SO. SANTA FE AVENUE

Modern Sprinklered Fireproof Building

Freight Forwarding and Distribution

Household and Merchandise Storage

PACKING AND SHIPPING

Member of N.F.W.A.—A.W.A.—Colo. W.A.

BRIDGEPORT, CONN.

E. G. Mooney, Pres.

J. G. Hyland, Mgr.

Hartford Despatch and Warehouse Co.
1337 Seaview Avenue

STORAGE AND DISTRIBUTION DAILY THROUGHOUT CON-
NECTICUT AND MASSACHUSETTS, PRIVATE DOCK AND
RAILROAD SIDING. SPECIAL FACILITIES FOR MOVING,
PACKING AND SHIPPING OF HOUSEHOLD EFFECTS.
WAREHOUSES AT SPRINGFIELD, MASS. AND HARTFORD,
CONN.

Member of A.W.A., N.F.W.A., A.C.W., A.F.L.

GREENWICH, CONN.

DRINKWATER SONS, Inc.

Offices

NEW CANAAN, CONN.

BEDFORD, N. Y.

PORT CHESTER, N. Y.

122 RAILROAD AVE.

2 WAREHOUSES

STORAGE, MOVING

50 Years in Business

Member N.F.W.A. C.W.A.



HARTFORD, CONN.

E. G. Mooney, Pres.

J. G. Hyland, Mgr.

Hartford Despatch and Warehouse Co.

252 Asylum Street, Hartford, Conn.

STORAGE AND DISTRIBUTION DAILY THROUGHOUT CON-
NECTICUT AND MASSACHUSETTS, PRIVATE SIDING,
SPECIAL FACILITIES FOR MOVING, PACKING AND SHIP-
PING OF HOUSEHOLD EFFECTS. WAREHOUSES AT
SPRINGFIELD, MASS. AND BRIDGEPORT, CONN.

Member of A.W.A., N.F.W.A., A.C.W., A.F.L.



NEW HAVEN, CONN.



M. E. Kisly, Mgr.
DAVIS STORAGE COMPANY
335 East St., New Haven, Conn.
Modern Fireproof Merchandise Warehouse.
Private seven-car siding, adjacent to Steamship and R. R. Terminals.
Pool and stop over cars distributed.
Motor Truck Service to all towns in Connecticut.
Low Insurance Rate. Prompt, Efficient Service.

NEW HAVEN, CONN.

AN ASSOCIATED

STORAGE and DISTRIBUTION



Established 1860

Merchandise, automobiles, furniture—23 buildings—Low insurance rates—15 car siding—Central location—Daily truck delivery service covering Connecticut and southern Massachusetts—Bonded with U. S. Customs.



THE SMEDLEY CO.
165 Brewery St., New Haven, Conn.
Members: AWA, NFWA, CWA, AFlne, MTA
of C, New Haven Chamber of Commerce,
Hauling member Allied Van Lines, Inc.



NEW HAVEN, CONN.



PAUL A. DAHLGARD, Owner
West Haven Trucking Company
Storage Warehouses
Offices, 435 Congress Ave.
Household Goods, Storage, Packing,
Shipping, Receiving

WASHINGTON, D. C.



E. K. MORRIS, President (See Page Advertisement Directory Issue)
Member—National Furniture Warehousemen's Association

Telephone ADams 5600
FEDERAL STORAGE COMPANY

1707 FLORIDA AVENUE

WASHINGTON, D. C.

Modern
Fireproof
Building

LONG
DISTANCE
MOVING

PACKING
STORING
SHIPPING



SMITH'S TRANSFER & STORAGE CO., INC.
1313-15-17-19-21 You Street, N. W.
Member—Mayflower Warehousemen's Association

WASHINGTON, D. C.

GENERAL MERCHANDISE STORAGE

Pool Car Distribution—
City Delivery Service

Direct Switching Connections into Warehouse
Pennsylvania Railroad

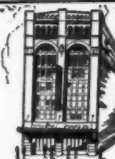
TERMINAL REFRIGERATING & WAREHOUSING CORPORATION

4th and D Streets, Southwest

Member of A. C. W.

WASHINGTON, D. C.

Established 1901



UNITED ★ STATES STORAGE COMPANY

418 10th Street, N. W.

We Reciprocate Shipments

(See Advertisement in Directory Issue, page 111)
Member of N.F.W.A.—W.W.A.

WASHINGTON, D. C.

SHIPMENTS DELIVERED AT CURRENT RATES IN WASHINGTON
AND VICINITY

Security Storage Company
OF WASHINGTON

Capital, Surplus and Reserves over \$1,200,000.

Security (steel) lift vans for overseas shipments. Door to door rates quoted, both to and from Europe and South America. All risk insurance if desired.

1140 Fifteenth Street, Washington
31 Place du Marche St. Honore, Paris

JACKSONVILLE, FLA.

FLORIDA'S LARGEST WAREHOUSE
UNION TERMINAL WAREHOUSE COMPANY
East Union and Ionia Streets

Merchandise Storage—Custom Bonded—Pool Car Distribution
Reconsigning—Trucking Service—Trackage 53 Cars
Reinforced Concrete—Sprinkler System
Insurance Rate 12 Cents
Rental Compartments—Sub-Postoffice, Western Union Tel.
Members A.W.A.—A.C.-of-W.—J.W.A.

MIAMI, FLA.

C. A. Burnet, Pres.

Sid Cox, Secy.-Treas.

C. A. BURNET WAREHOUSE & TRANSFER CO., Inc.
20-26 N.E. 11th St.



Largest Commercial Storage Warehouse
in Miami. Five Stories absolutely
Fireproof—Private Siding.



Centrally Located to Jobbing Trade—Building A.A.A. Construction

WASHINGTON, D. C.

W. E. EDGAR, Supt.

THE TERMINAL STORAGE COMPANY
OF WASHINGTON
First, K and L Streets, N. E.

Large buildings of modern construction, total floor area 204,000 square feet, of which 109,000 square feet is of fireproof construction.
Storage of general merchandise.

CONSIGN SHIPMENTS VIA B. & O. R. R.

Heated rooms for protection against freezing.
Member of American Warehousemen's Association

MIAMI, FLA.

W. M. KELLEY, Manager

CHAILLE WAREHOUSE

Merchandise Storage and Pool Car Distribution
Office, 117 N.E. 26th St.

Private Siding
on F.E.C. Ry.

Sprinklered

Low Insurance Rate

MIAMI BEACH, FLA.

Washington Storage Co., Inc.

1001 Washington Avenue

Moving—Packing—Shipping—Storage

Members NFWA, SOWA

PENSACOLA, FLA.

H. P. Ferriss, Pres. H. W. Ferriss, Mgr.



FERRISS WAREHOUSE and STORAGE CO.

Merchandise and Household Goods Storage
Pool Car Distribution on private siding
L & N Ry.—Free switching from Frisco

PENSACOLA, FLA.

W. A. Ray, Pres. & Mgr. M. Ray, Sec.-Treas.

The Bonded Warehouse Company

Handling merchandise in brick buildings sprinklered, on private siding L&N (3-car capacity) at 710 So. Palafox St. U. S. Customs bonded; U. S. Warehouse Act bonded.

For merchandise and household goods we have at 711 Jefferson St. 35,000 sq. ft. Consign CL Shipments via L&N; LCL via L&N-Frisco. Specialize in sugar, autos, oil, beer, liquors, canned goods, wire rope, cotton. Distribute pool cars, transfer household goods. Three trucks. Branch office and show room facilities.

N.F.W.A.—(See page 49)

M. D. Snedecor,
Chicago



(Continued from page 52)

supply. Shipments are made to warehouses in pool cars carrying both zinc oxide and white lead in proportions generally averaging 2/3 of the former and 1/3 of the latter. The white lead is packed in 600 pound (net) wooden barrels. The zinc oxide is also packed in wooden barrels as well as in heavy paper bags. Pharmaceutical zinc oxide (U.S.P.) and White Seal zinc oxide, as instances, are shipped in 100 pound and 150 pound barrels respectively. The Green Seal and Red Seal zinc oxides are packed in 300 pound barrels and 50 pound paper bags. As there are some fifteen different classifications of zinc oxides, each grade is differentiated and identified by the color of the container. For instance, the bags are red, green, blue, orange, white, and so on, as well as marked with various combinations of stripes.

Reshipments from warehouse points are usually made by truck, the company reserving the right to make the decision.

A salesman covering a territory served by one of the public warehouse stocks may telephone orders to the warehouse, mailing the signed order to the home office. The warehouse makes the shipment, prepares a delivery memorandum in triplicate, and sends one copy to the home office, one to the agent or salesman, and retains the third. With the one to the home office is sent the customer's receipt for the delivery. This delivery memorandum is supplied by the company and is the only form used between the company and its ware-

(Concluded on page 56)

TAMPA, FLA.

"Your Tampa Branch House"

CALDWELL BONDED WAREHOUSES

INCORPORATED

MERCHANDISE

Storage & Distribution
Fireproof Buildings
Waterfront Whse. and
Private Docks

U. S. CUSTOMS

Bonded Storage
Government Storekeeper
retained permanently.
Normal temperatures for
Wines and Liquors.

HOUSEHOLD

Moving & Storage Agents
Acme Mayflower Transit
Co.
National Long Distance
Movers

Members Mayflower Warehousemen's Assn.
American Chain of Warehouses

TAMPA, FLA.

"The Safest Place in Tampa"

LEE TERMINAL



MERCHANDISE STORAGE

Pool Car Distribution—Rail & Water Connections—Clean dry storage space—Night and day Watchman. Negotiable receipts issued. Invoicing accurately done. Every service required of a Branch House.

HOUSEHOLD GOODS

Storage — Moving — Packing — Shipping. Make your consignments to us and be assured of entire satisfaction. Agents ALLIED VAN LINES, National Furniture Movers, Corporation Employee Moves solicited.

Lee Terminal Service combines a warehouse building so constructed as to enjoy Tampa's Lowest Insurance rate. Ideally located for economic distribution. The utmost care is given all shipments and collections are made and remitted promptly.

Members AWA—NFWA—SoWA

Represented by DISTRIBUTION SERVICE, INC.

TAMPA, FLA.



TAMPA UNION TERMINAL, INC.
TAMPA, FLORIDA

Offering storage and distribution in the South's largest and most modern combined General and Cold Storage Warehouse. Building of Reinforced concrete with sprinkler system, low insurance rates. Private railroad sidings served by SAL and A.C. Private Docks. Special attention given Pool Car Distribution. Internal Revenue and U. S. Customs Bonded Warehouse with storekeeper retained permanently.

"Let Us Solve Your Distribution Problems"

Member American Warehousemen's Association

TAMPA, FLA.

WILLIAM J. EVE, Manager

WAREHOUSE, INC.

BONDED

**CARLOAD AND COMMERCIAL STORAGE
POOLED CAR DISTRIBUTION**

Morgan and Water Streets, Tampa, Florida

ATLANTA, GA.

FRED E. STEVENS, Owner and Manager

Atlanta Service Warehouse

223 Spring Street, S. W.

Merchandise Warehousing

Pool Car Distribution

Gen. of Ga. Ry. Trackage

Members A.W.A.

"Service" Is Our Middle Name

ATLANTA, GA.

BONDED SERVICE WAREHOUSE

432-434 Marietta Street

BONDED
FIREPROOF STORAGE
MERCHANDISE
AND HOUSEHOLD GOODS
POOL CAR DISTRIBUTION

ATLANTA, GA.

BONDED

General Warehouse & Storage Co., Inc.

272-274 Marietta St., Atlanta, Ga.

Consigned stocks handled for Manufacturers

Remittance made day received

Store door delivery—Re-packing—Re-shipping

MERCHANDISE DISTRIBUTION

Sprinkler System—R.R. Trackage—Pool Car Distribution

ATLANTA, GA.

HAMLETT BONDED WAREHOUSE, Inc.

78 Bell Street S.E.

Walnut 7524

Conveniently located for prompt service

MERCHANDISE STORAGE

HOUSEHOLD STORAGE

Office Space

Moving—Packing

ATLANTA, GA.

"Atlanta's Largest"

MONROE BONDED WAREHOUSES

Invested Capital \$325,000

Lowest Warehouse Insurance Rate in Atlanta

MERCHANDISE—COLD STORAGE—TRUCKING

Private Railroad Sidings—Concrete Warehouses

A. D. T. Service

Member: A. W. A.

AUGUSTA, GA.

AIKEN, S. C.

F. L. Harrison, Pres.

RELIABLE TRANSFER CO.

General Merchandise Storage and Distribution

Household Goods Storage, Packing, Shipping

Pool Car Distribution

Direct R.R. Siding A. C. L., C. & W. C. R.R.

SAVANNAH, GA.

Savannah's only bonded warehouse

SAVANNAH BONDED WAREHOUSE & TRANSFER COMPANY.

BAY STREET EXTENSION & CANAL
Post Office Box 1187

General Storage—Distribution—Reconsigning

Custom House Brokers—Custom Bonded

Regular steamship service from principal

Eastern, Western & Gulf ports—track con-

nections with all rail and steamship lines.

R. B. Young, President.

Members—A.W.A.—A.C.W.—S.W.A.



HONOLULU, HAWAII

WHEN SHIPPING GOODS TO

HONOLULU

Assign to us and the same will be given our best attention.

Modern Concrete Warehouses. Collections promptly remitted.

Correspondence solicited.

CITY TRANSFER COMPANY

Cable Address: LOVERINO, HONOLULU

N.F.W.A.—(See page 49)



G. E. Lewis,
Fort Wayne

Roy O. Potter,
Royal Oak, Mich.

(Concluded from page 55)

house units. It constitutes a veritable perpetual inventory.

Although each warehouse is supplied with an accredited list of customers in the territory served, the Anaconda products are principally sold to established manufacturers whose rating is generally well known.

No special or unusual care of the stock is necessary and none is required from the warehouses other than that the products be kept dry. The barrels, however, must not be rolled. This applies more particularly to the barrels of white lead, which are best handled with any of the types of floor trucks specially designed for trucking barrels.

The key men at the East Chicago plant have been chosen with great care, due consideration having been given to experience and efficiency. F. O. Case, manager of the Midwest district, has been with this branch of the company since its origin. He has been general superintendent and general sales manager in turn before being placed in his present position.

G. E. Johnson, plant manager, is in charge of the three units of the East Chicago plant and also of the Akron plant. He was with the Anaconda Copper Mining Co. in the West before coming to the East Chicago plant, where he has pioneered in the white lead process and placed it in operation.

R. G. Bowman, general superintendent, is assistant to Mr. Johnson in the capacity of general plant superintendent of the International Smelting and Refining Company's plants located in East Chicago. He entered the services of Anaconda Copper Mining in 1911 as railroad location engineer at Anaconda, Mont.

George Anderson, technical superintendent, has been with the company since 1923, having started in the production department.

W. J. Knox, Jr., white lead plant superintendent, started as head of the research department about 1920. He is now and has been in charge of the white lead plant for the past ten years.

R. I. Spade, plant superintendent of the East Chicago zinc oxide department, started with the company about five years ago in the zinc oxide department at the Akron plant. He has just recently been appointed plant superintendent of the East Chicago plant.

Mr. L. G. Duncan, sales manager, is located at the Akron plant. He has been associated with the company since 1924.

BOISE, IDAHO

Selling Services Arranged

BOISE COLD STORAGE COMPANY

Merchandise Warehousing & Forwarding
Negotiable Warehouse Receipts Issued
Pool Car Distributors

304 S. 16th St. P. O. Box 1656 On U.P.R.R.

CHICAGO, ILL.

**Combine your Chicago Office
and your Warehouse**

at **ANCHOR**. The best

location in Chicago—across the street from Tribune Tower and only three minutes from the loop.

You will find here every facility for the efficient storage and distribution of your merchandise.

Re-shipping facilities second to none—direct tunnel connection with all railroads eliminating cartage. Private switch on CANW Railway—delivery platform inside the building—private dock on Chicago River outside all bridges—lighterage connection with rail lines eliminating switching delays.

ANCHOR STORAGE CO., 219-229 East North Water Street

CHICAGO

Represented by
DISTRIBUTION SERVICE, INC.

CHICAGO, ILL.

CHICAGO'S LOOP WAREHOUSE

C & A TERMINAL CO.

358 W. HARRISON ST.

Modern concrete building. 30 car track served by Alton-B. & O. R.R. Tunnel connection all railroads for L.C.L. shipments. Next door Parcel Post Bldg. for economical and speedy handling of Parcel Post shipments.

CHICAGO, ILL.

MODERN WAREHOUSES

UNIQUE
IN CHICAGO!

CENTRALLY
LOCATED

UNION FREIGHT STATION
UNDER SAME ROOF

UNEXCELLED
FACILITIES

Central Storage
& FORWARDING COMPANY
2001 West Pershing Road
Telephone: LAfayette 5628

CHICAGO, ILL.



**DOWNTOWN
WAREHOUSE**

Most Centrally Located
2 Blocks from New Union Station
**CANAL &
HARRISON STS.**
Tunnel and Trap Car
Service

CROOKS TERMINAL WAREHOUSES

CHICAGO

NEW YORK OFFICE: 271 MADISON AVENUE

KANSAS CITY

**SOUTH SIDE
WAREHOUSES**

5801-5967 West 65th St.

Capacity 1200 Carloads
Insurance Rates as Low as 12c.



CHICAGO'S MOST MODERN WAREHOUSES

Also operate three modern warehouses in Kansas City and the Overland Terminal Warehouse Company at Los Angeles, California.

LIBERAL LOANS MADE ON STAPLE COMMODITIES

CURRIER-LEE

Answers..

THE FINANCE PROBLEM
OF WAREHOUSING

Currier-Lee's well established reputation, built up through years of business relations with leading financial institutions in the Chicago area, enables us to obtain **CASH LOANS** against staple merchandise stored within our walls—a service making it possible for you to carry huge reserve and surplus stocks **WITHOUT TYING UP** too much capital. We issue **negotiable receipts** against merchandise stored with us—paper good as collateral for substantial loans from any banking institution in Chicago. Consider this **extra service** when choosing warehousing facilities. For complete details write for illustrated literature—**CURRIER-LEE ANSWERS** your distribution and storage problems.

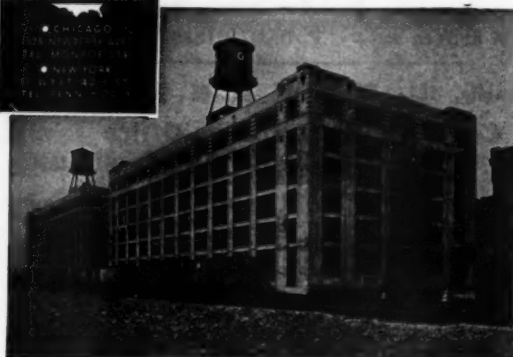
CURRIER-LEE WAREHOUSE CO.

General Offices 427 W. Erie St., Chicago, Ill.



CHICAGO, ILL.

Member A. W. A.

COMPLETE WAREHOUSING
AND DISTRIBUTING SERVICEGRISWOLD-WALKER-BATEMAN
COMPANY

1525 Newberry Ave.

Chicago

Modern buildings strategically located. Direct trackage connections with C&NW, B&O, Soo Line, PM, CGW, and B&OCT (belt line connecting all RR's.). Trap car reshipping. Motor truck deliveries. Long distance motor transportation. Guardite fumigation protection. U. S. Customs Bond. Office facilities.

Details of this complete service are described in a booklet "The Way to Distribution"—Write for your copy.

CHICAGO, ILL.

Accessible Location.
Modern Warehouse.
Excellent Shipping
Facilities.
Delightful Offices.
Special Equipment.
Economical Service.
No cartage expense on
outbound L. C. L.
Freight.
1455 W. 37th St.

DIETRICH

WAREHOUSING COMPANY

1455 W. 37th St.

CHICAGO, ILL.

W. F. CARROLL, Pres.

J. J. BARRETT, Gen. Mgr.



EMPIRE

MAINTAINS A
STANDARDIZED SERVICE

For almost fifty years EMPIRE Service has been preferred by companies desirous of giving the household effects of employees, transferred to or from Chicago and suburbs, the very best of care and service.

LONG DISTANCE REMOVALS
PACKING AND SHIPPING BY RAIL
STORAGE FOR HOUSEHOLD GOODS AND MERCHANDISE
(CITY-WIDE SERVICE)

EMPIRE WAREHOUSES, Inc.

General Offices: 5153 Cottage Grove Ave., CHICAGO-ILLINOIS

CHICAGO, ILL.

RALPH J. WOOD, Pres.

MORRISON C. WOOD, Treas.

For Shipments to the South Side's Finest Residential Districts
CONSIGN TO

The Lincoln Warehouse Corporation

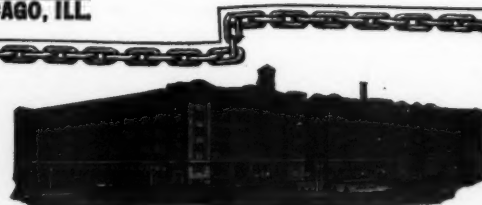
Main Office and Warehouse—4259 Drexel Boulevard

"43 Years of Distinctive Service"

Personal attention of executives to customers. Collections promptly remitted.

Member N.F.W.A.

CHICAGO, ILL.



MIDLAND

Offers

LARGE AND SMALL SHIPPERS
THREE MODERN MERCHANDISE
WAREHOUSES

at

CHICAGO

With convenient locations

For Local Trade.

With excellent transportation facilities

for National Distribution

Chicago Junction In and Out-bound Union Freight Station—direct connections with thirty-eight railroads, no trap car, tunnel or cartage service or charges on in or out-bound LCL shipments. Receiving stations of Express, Freight Forwarding, Electric and Boat Lines on premises.

With a complete warehouse organization

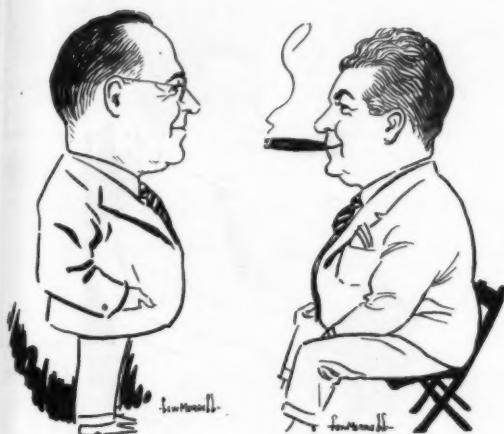
fully equipped to handle merchandise rapidly and economically

Let Us Quote on Your Requirements

MIDLAND WAREHOUSES, INC.

1500 SOUTH WESTERN AVENUE,
CHICAGO, ILL.

N.F.W.A.—(See page 49)



George B. Anderson,
Evanston, Ill.

Joseph H. Meyer,
Chicago

Domestic Sugar Goes on the "Spot"

(Continued from page 9)

The company maintains control of its product until it is sold. In each city where stocks are maintained a broker handles the sale. Stocks are consigned to the Great Western, at the warehouse, and the receipted consignment sheet serves as the record of that particular stock.

The broker making a withdrawal may use his own form or a warehouse form in reporting the withdrawal. This is sent in to the office, where it is checked against the consignment sheet. This furnishes a complete inventory at all times. By consulting its consignment records the company is able to know exactly how much stock there is all together or how much in a given warehouse.

At the eastern end of the operations are the greater number of warehouses, each with considerably less stock than those at the western end of the shipping. It is planned to have just enough stock spotted to care for the market needs for a certain period of time.

Immediate delivery is possible almost anywhere on the Atlantic seaboard because of the proximity of a warehouse at the trade centers. This has been found to be a more satisfactory plan than to have the stock concentrated at a few points and take a longer time in delivery.

As large a stock as can be conveniently stored is kept at the factories, and re-orders from warehouses filled from these. If time does not permit, orders are filled from the nearest warehouse with an overlarge supply, but preferably from the warehouse farthest west, or from transit stocks.

The broker-warehouse combination makes it possible for the company to maintain the main offices near the factories. Marketing problems are eliminated to a large extent, the broker being interested in making sales, and the warehouse taking care of the stock. Deliveries from the warehouse are done away with as far as the

(Concluded on page 60)

Service that meets today's
distribution needs—backed by
more than 25 years experience.

RAILWAY TERMINAL & WAREHOUSE CO.

444 West Grand Avenue, Chicago, Illinois

ONTARIO WAREHOUSE CO., 425 WEST ONTARIO STREET

Two warehouses close to the
Loop • Direct railroad connec-
tions • Office and warehouse
space to rent • U. S. Customs
Bonded Storage • Loans on
standard merchandise • Low in-

surance rates • Direct tunnel
service • Special facilities for
the storage of wines.

Write for information on services
to meet your individual needs.

CHICAGO, ILL.

"Chicago's Leading Warehouse"

SENG WATERWAY WAREHOUSE CO.

310 West Polk St.

Complete water, rail and truck terminal, facilities with a
"loop" location. Concrete dock for ocean, lake and river
vessels—25 car siding capacity—own fleet of 69 trucks.
Economical reshipping—tunnel—lighterage.

CHICAGO, ILL.

Soo Terminal Warehouses

519 W. Roosevelt Road

(Near Loop)

Merchandise Storage—Pool Car Distribution

Less Carloads To and From All Trunk Lines,
North Shore Electric and Aurora and Elgin Elec., and Their
Connections Handled Without Cartage Charges.
Cool Temperatures—Candy Stored All Year

Ground Floor Warehouse Spaces With or Without
Offices for Rent—Fireproof—Trackage

CHICAGO, ILL.

Merchandise Storage and Distributors

WAKEM & McLAUGHLIN, Inc.

Est'd. 1886

MAIN OFFICE—225 E. ILLINOIS ST., CHICAGO

U. S. Internal Revenue Bonded Warehouse

U. S. Customs Bonded Warehouse

ADVANCES MADE

Our ample financial resources enable you to negotiate
loans right in our office.

Prompt Delivery and Best of Service.

The Producers of

Wolff Bros. Cereals

select their

Merchandise and Cold Storage Warehouses
from the pages of this Magazine

CHICAGO, ILL.

WERNER BROS. KENNELLY COSTORAGE
MOVING
PACKING
SHIPPING**M. H. KENNELLY, President**

Your Chicago Shipments given preferred attention. Pool cars handled on our own switch track.

Consign C. M. St. Paul & P. R. R. . . .
Wilson Ave. Branch.

CONTAINER SHIPMENTS SOLICITED

Warehouses Conveniently Located

2815 Broadway
4917 Broadway
7613 N. Paulina St.
4615 Clifton Ave.

PARK BRANCH
1750 N. Clark St.
Opposite Lincoln Park
TRAFFIC DEPT.
3133 N. Halstead St.

MAIN OFFICE:

2815 BROADWAY, CHICAGO, ILLINOIS

CHICAGO, ILL.

ESTABLISH YOUR CHICAGO BRANCH

In the modern building of Western Warehouse. No matter what facilities you require, you will find it more economical and satisfactory to take advantage of Western's unusual service.

Located on the edge of Chicago's famous Loop and only one block from the mammoth new Post Office, Western Warehouse is in the heart of all business activity. Write for complete information.

WESTERN WAREHOUSING COMPANY

323 West Polk Street

Chicago, Ill.

DANVILLE, ILL.

C. B. Hall, Pres. M. P. Hall, Sec. & Treas.**DANVILLE TRANSFER & STORAGE CO.**

The only fireproof warehouse in Danville.
Storage for household goods and Merchandise Distributing. Conveniently located in the heart of the wholesale district. Private siding to warehouse, and free switching from all railroads.

Low Insurance Rate
Danville is the breaking point of Eastern and Western Classification of freight rates, making a most convenient point for the distributing or storage of carloads.
American Warehouse Association.
Members National Furniture Warehousemen's Association.
Members Illinois Furniture Warehousemen's Association.

DECATUR, ILL.

Decatur Warehouse Company

(Shumate Transfer)

**20-30 INDUSTRY COURT
TRANSFER-STORAGE****MOVING-PACKING-DISTRIBUTION****BONDED :: LICENSED :: INSURED CARRIERS**

N.F.W.A.—(See page 49)



C. H. Smith,
Cincinnati

(Concluded from page 59)

company is concerned, the warehouse or broker supplying this need.

Great Western is well satisfied with this system because it leaves the company to concentrate on the production end of its business. The size of the crop of sugar beets, and labor for the beet fields and for the factories, are vital factors in the amount of sugar that will be finished for the year.

The number of public warehouses used depends to a certain extent on the size of the production. This is limited somewhat by the number of acres of beets planted by their growers, and the quality of the beets, high sugar content of the beets making a high production, even from a comparatively small crop.

In the regions where warehouse conditions are ideal for storing sugar, the chief effect of a large production is to increase the amount of stock stored. Chicago, for instance, is the center of a large business area, and a great deal of sugar is stored there. This sugar may be re-shipped farther east before reaching the consumer.

The system of warehouses, closely centered from Chicago and Omaha as western points, spreads out fanwise to the East. The larger the area covered, the smaller the stock consigned to these points where it will be sold in a short time.

There may be enough sugar stored in Chicago to supply that city's need for a year, and only enough at New York for a month's needs. But the Chicago stock can be moved on, for there is a new crop coming on in Colorado, Nebraska, Wyoming, and Montana and it will soon be ready to be stored until needed.

Position Wanted

BY man who has had fifteen years' experience as superintendent and traffic manager in the household furniture and automobile storage warehouse business.

Thoroughly acquainted with all details of warehouse. Also understands the handling, storing and packing of furniture, and loading of vans. Capable of managing help to advantage.

Would consider position anywhere.

Address Box Q-933, care of **Distribution and Warehousing**, 249 West 39th Street, New York City.

DECATUR, ILL.



Member of A.W.A.—N.F.W.A.

Decatur's Pool Car Distributors

Spot stock storage deliveries. Merchandise and Household Goods Storage. Private siding and free switching WITH PROTECTION IN THE ONLY FIRE-PROOF WAREHOUSE IN THE CITY. Lowest fire insurance rates. Pick up and delivery service maintained via our freight terminal.

Office:—401 E. WILLIAM ST.

EVANSVILLE, IND.

"Where waterway-railway-highway meet"

MEAD JOHNSON TERMINAL CORPORATION

Combination River-Rail Truck Terminal & Warehouse



90,000 sq. ft. floor space on one floor. Served by two railroads—C. & E. I. and L. & N. Reciprocal switching to all Evansville industries. Fireproof; Sprinkler system; Thermostatically heated; Lowest insurance. Ideal trucking facilities. Store door service. Merchandise storage. Pool car distribution. Served by American Barge Line, Mississippi Valley Barge Line and Independent Tows.

EVERYTHING NEW—STRICTLY MODERN

JOLIET, ILL.

Telephones 501 and 502

Joliet Warehouse and Transfer Company
Joliet, Illinois

MERCHANDISE STORAGE AND DISTRIBUTION

Best distributing point in Middle West. Located on five Trunk Lines and Outer Belt which connects with every road entering Chicago.

No switching charges.
Chicago freight rates apply.

PEORIA, ILL.

All Points of the Compass



Peoria is the logical center of distribution for Illinois.

We will be pleased to explain our service and facilities.

Our Dependability Your Assurance of Satisfaction

Member of A. W. A.

FEDERAL WAREHOUSE CO.
Adams and Oak

FORT WAYNE, IND.

FORT WAYNE [WITH MIGHT AND MAIN] STORAGE CO. THE SAME

FIREPROOF AND NON-FIREPROOF BUILDINGS.
Pittsburgh, Fort Wayne & Chicago R. R.; Grand Rapids & Indiana R. R.; Wabash R. R.—Private Sidings—Pool Car Distribution

FORT WAYNE, IND.

PETTIT'S STORAGE WAREHOUSE CO.

"Fireproof" Buildings

STORAGE, TRANSFER, DISTRIBUTION

Located in Center of Business District

We have our own truck line and are equipped to make prompt deliveries
Private siding

PEORIA, ILL.

NATIONAL WAREHOUSE CO.

Est. 1920

1323 SO. WASHINGTON ST.

- Merchandise Storage
- Pool Car Distribution
- Fireproof Building; Sprinklered
- Low Insurance Rate
- Private Siding
- Motor Truck Terminal

HAMMOND, IND.

Members N.F.W.A., Allied Van Lines

JOHNSON

Transfer and Fireproof Warehouse

MERCHANDISE AND HOUSEHOLD GOODS STORAGE

WAREHOUSE and OFFICE: 405 Douglas Str.

ROCKFORD, ILL.

BARTLETT WAREHOUSE

TRACKAGE—

—FREE SWITCHING

SPARKLING SERVICE

506-514 Cedar St.

Phone Main 134

ROCK ISLAND, ILL.

THE CENTER OF THE QUAD-CITIES
160,000 POPULATION — RATE BREAKING POINT
MOTOR FREIGHT SERVICE IN ALL DIRECTIONS
FEDERAL BARGE LINE TERMINAL

C. B. & Q. SIDING—FREE SWITCHING

ROCK ISLAND TRANSFER & STORAGE CO.

Member of A. W. A.—N. F. W. A.

INDIANAPOLIS, IND.

"Coburn Service for Efficiency"

HENRY COBURN

STORAGE and WAREHOUSE CO.

Merchandise Storage, Distribution, Trucking

Leased Space—Offices—Low Insurance

Loans on Receipts

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Indianapolis Warehouse and Storage Co.

330 West New York St.

Indianapolis, Ind.

Merchandise Warehouse, Brick, Sprinklered, 80,000 Square feet, private siding C.C.C. & St. L. Pool Car Distribution. Lease Space. Office Space.

Member of A.W.A.—Ind. W. A.—Associated Warehouses, Inc.

INDIANAPOLIS, IND.

Strohm Warehouse & Cartage Company

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Telephone Ri. 5513

General Merchandise Cold Storage. Pool Car Distribution and Checking Out. All Merchandise on Check Out Cars Placed on Platform Ready for Delivery.

CCC & St. L. R.R.

Modern Truck Equipment.

The Producers of

Junket Food Preparations

select their

Merchandise and Cold Storage Warehouses
from the pages of this Magazine

INDIANAPOLIS, IND.

Service That Satisfies

TRIPP WAREHOUSE COMPANY

1000 E. New York St.

Merchandise Storage, Distribution, Trucking

Private Siding C.C.C. & St. L.

Members A.W.A. Am. Chain Whse. Ind. W. A.

TERRE HAUTE, IND.

DISTRIBUTORS TERMINAL CORPORATION

Private R.R. Track Capacity 21 Cars connecting with all Lines.

Merchandise Storage and Distribution a Specialty

Pool Cars Solicited

Motor Trucks for Store Door Delivery. Our clients do the selling—We do the rest. U. S. Licensed and Bonded Canned Foods Warehouse
License No. 12-4.

CEDAR RAPIDS, IOWA

CEDAR RAPIDS TRANSFER & STORAGE CO.FIREPROOF WAREHOUSE
ALL MODERN FACILITIES FOR EFFICIENT WAREHOUSING
AND DISTRIBUTION OF MDSE. AND H. H. GDS.**MOTOR FREIGHT TERMINAL**

For Reputable Freight Lines

DAILY SERVICE IN EVERY DIRECTION

FREE SWITCHING FROM ALL RAILROADS ENTERING CEDAR RAPIDS
Special Warehouse for Farm Machinery and Heavy Equipment

DAVENPORT, IOWA

Including Rock Island and Moline, Ill.

Ewert & Richter Express & Storage Co.

Fireproof Warehouse, on Trackage—In the Business and Shipping District of Davenport.

Pool car distribution—Mdse. & H.H.G. with motor truck service—direct from our Combined Rail and Truck Terminal.

A. W., Inc.—A.W.A.—N.F.W.A. Phone Dial—3-3653

DES MOINES, IOWA

BLUE LINE STORAGE CO.

200-226 - Elm - Des Moines, Ia.

Merchandise and Household Goods Storage
Private Siding—Free switch from any R.R. entering Des Moines

Members: A.W.A.—N.F.W.A.—I.W.A.—M.O.W.A.

DES MOINES, IOWA

Member American Chain of Warehouses

Fire
Proof
Ware-
house**MERCHANTS**
TRANSFER & STORAGE CO.9th
&
Mulberry**TRY OUR SUPERIOR SERVICE**40 years' warehousing nationally known accounts
gives you Guaranteed Service
Daily reports of shipments and attention to every detail.

DES MOINES, IOWA

ESTABLISHED 1880

White Line Transfer & Storage Co.

120 So. FIFTH AVE.

DES MOINES, IOWA

Moving; Packing; Shipping, Consolidators and Forwarders

Fireproof and Non-Fireproof Storage of

AUTOMOBILES, INFLAMMABLES, HOUSEHOLD GOODS

MERCHANDISE (All Kinds)

Private Sidings—Free Switching to and from All Lines Entering Des Moines

(Lowest Insurance)

Member: A. W. A., Mxy. W. A., Ia. W. A., Mo. W. A.

The Producers of

"Blackstone" Cigars

select their

Merchandise and Household Goods Warehouses
from the pages of this Magazine**25 MOTOR FREIGHT LINES**with overnight service within a radius
of 100 miles

• Twenty-five motor freight lines operating from our terminal provide daily service to all points in Mason City's distribution area, thus enabling us to offer exceptional service—especially pool car distribution service—throughout the territory we serve.

• Complete rail service by all lines serving Mason City and their connections—Interchange rail to truck, or truck to rail, under one roof.

• Modern reinforced concrete and steel fireproof building especially built for warehouse purposes and ideally located to serve all Northern Iowa and Southern Minnesota territory.

MERCHANDISE STORAGE

POOL CAR DISTRIBUTION

PRIVATE RAIL SIDING

MASON CITY WAREHOUSE CORPORATION

MASON CITY, IOWA

WATERLOO, IOWA

IOWA WAREHOUSE CO.

Fireproof Warehouse

Motor Truck Service

Distributing and Warehousing All Classes of
Merchandise, Household Goods and Automobiles

HUTCHINSON, KANSAS

Acro Mayflower—A. W. A.

CODY**Transfer & Storage Co.**Fireproof Warehouse—Merchandise and Household Goods
Private siding — Free switching — Pool car distribution

KANSAS CITY, KANSAS

GRANDVIEW CLUB TRANSFER & STORAGE CO.

Modern distribution and warehousing service

Merchandise and household goods.

Reinforced concrete buildings. Private siding.

Free switching to and from all lines.

75,000 sq. ft. modern storage.

KANSAS CITY, KANSAS

Inter-State Transfer and Storage Company**FIREPROOF WAREHOUSE**

Packing, Moving, Storing and Shipping

18th & Minnesota

L. J. CANFIELD, Proprietor

Telephone Drexel 3420

N.F.W.A.—(See page 49)



Irving W. Walker,
Indianapolis

Settling Disputes by Arbitration

(Concluded from page 10)

pending which time the family was to live with relatives, at whose home certain immediately needed articles were to be delivered by the van on its way to the warehouse.

Later the customer reported that a "bundle of clothing" had been lost. Despite assurances of its employees that everything to be left at the temporary residence had been delivered, the warehouseman inserted an advertisement in the newspapers in an attempt to locate the missing bundle, but to no avail.

A claim of \$681 was made upon the warehouse to cover value of contents, alleged to have included mattress, pillows, bedspreads, blankets, overcoat, fur coat, bed linen, numerous articles of wearing apparel and other items. The method of packing the bundle had been to spread two sheets on the floor and pile the articles in the center. The corners of the double sheets were then tied. This bundle, the last item to be taken from the apartment, was put on the van, never to reach its destination.

The arbitrator, a retired manufacturer, accepted the plaintiff's claim that a bundle had been lost, but agreed with the warehouseman that it was a physical impossibility to have squeezed into such a bundle the items enumerated. The customer was awarded the sum of \$50 to cover his loss, as in the arbitrator's opinion that sum, the limit of recovery on any one piece or package according to the terms of the contract between the parties unless a greater valuation was declared in advance, was ample to reimburse him for what could have been assumed, within reason, to have been in the bundle.

The reference of these and similar claims by New York warehousemen to a neutral, disinterested and non-profit-making body such as the American Arbitration Association, whereby the claimant can secure an adjudication quickly, impartially and at an average cost of not more than \$5, provides an example of what one group of business men is accomplishing as a real contribution to public service and to the building up of a spirit of fair-dealing between a business group and those upon whom the prosperity of the group depends.

PARSONS, KANSAS

PARSONS COLD STORAGE COMPANY

COLD STORAGE AND MERCHANDISE WAREHOUSING
POOL CAR AND SPOT STOCK DISTRIBUTION
MOTOR FREIGHT TERMINAL
QUICK SERVICE AND REASONABLE RATES
PRIVATE SIDING AND FREE SWITCHING

2015-2031 Gabriel

Phone 352

TOPEKA, KANSAS

E. H. White, Pres. & Treas. E. F. Dean, Vice-Pres. A. S. Durall, Sec.

TOPEKA TRANSFER and STORAGE Co., Inc.

Established 1890

A.W.A.

N.F.W.A.

FIREPROOF WAREHOUSES FOR MERCHANDISE & HOUSEHOLD GOODS
TWICE DAILY TRUCK SERVICE TOPEKA-KANSAS CITY
CITY-WIDE DELIVERY SERVICE
Private Switch Connections AT & SF, CRI & P, U.P. and M.P.
Member of American Chain of Warehouses

WICHITA, KANSAS

A Modern Distribution and Warehousing Service

Brokers Office & Warehouse Co.

Murray E. Cuykendall, Gen. Mgr.

Member of American Chain of Warehouses

WICHITA, KANSAS

Write or Wire



Cassell
TRANSFER & STORAGE CO.

WICHITA, KANSAS

Fireproof Storage and Sprinkler System

WICHITA, KANSAS



Merchandise Warehouses

at

TWO BIG

MARKETS

WICHITA, KANSAS

KANSAS CITY, MO.

LEXINGTON, KY.

THE UNION TRANSFER and STORAGE COMPANY, Inc.

THREE LARGE WAREHOUSES

Fireproof and Non Fireproof. Centrally Located.
Warehouses on Private Sidings. Free Switching Charges.
DISTRIBUTION OF POOL CARS A SPECIALTY

MERCHANDISE AND HOUSEHOLD GOODS
WE FURNISH MOTOR TRUCKS AND TEAM SERVICE

Member American Chain of Warehouses

LOUISVILLE, KY.

EMANUEL LEVI, Pres.

W. L. STODGHILL, Gen. Mgr.

FIREPROOF STORAGE COMPANY, Inc.

305 W. LIBERTY ST.

MODERN FIREPROOF H. H. GOODS DEPOSITORY
MOVE—PACK—SHIP

Members: Mayflower Warehousemen's Association

LOUISVILLE, KY.

**Most Centrally Located Warehouse and
Motor Truck Terminal in Louisville.**Our
Service
is Our
Sales
ForceWith a trained personnel and modern facilities
for rendering efficient distribution service.
ASK YOUR CUSTOMERS HERE.

CHESTER BELL, Gen. Mgr.

KENTUCKY TERMINAL WAREHOUSE COMPANY
1101 West Kentucky St. Louisville, Ky.

LOUISVILLE, KY.

LAMPPIN WAREHOUSE COMPANY

1409 Maple St., Louisville, Ky.

Merchandise Warehouse 50,000 square feet,
Mill Construction, Sprinklered, private
siding P.R.R. Distribution of pool cars.

LOUISVILLE, KY.

Louisville Public Warehouse Company

25 WAREHOUSES

\$750,000 CAPITAL

Louisville Member
AMERICAN CHAIN-DISTRIBUTION SERVICE, INC.
Gen'l Mdee. ——— H. H. Goods

LOUISVILLE, KY.

Ninth Street Public Warehouse

Warehousing in all its Branches

Also Operators of

Liberty U. S. Tobacco Bonded Warehouses

Sprinklered Buildings—Most Centrally Located with Rail and
Truck Sidings.**MAIN AT NINTH**

ALEXANDRIA, LA.

ALEXANDRIA IN THE HEART OF LOUISIANABonded Brick & Concrete Warehouse. Stor-
ing, Packing, Pool Car Distribution. Agents
Acro Mayflower Transit Co. Private Sidings
L.&A.S., P.&R.I. Ry.**Carnahan's Transfer & Storage**

Member of A.W.A.-May W.A.-S.W.A.

MEMBER

WAREHOUSEMEN'S
ASSOCIATION

NEW ORLEANS, LA.

R. W. DIETRICH, President

Importers' Bonded Warehouse

(Member of A.W.A.)

and

Bienville Warehouses Corporation, Inc.

(Member of A.C.W.)

Office, 340 Bienville St.

NEW ORLEANS, LA.Complete Warehousing and Distribution Service for
New Orleans and its territory.200,000 square feet of storage space with track room
for 30 cars at one placement. Licensed by and bonded
to the State of Louisiana and the U. S. Government.New York Representative
MR. J. W. TERREPORTE
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Telephone: Plaza 3-1235Chicago Representative
MR. W. H. EDDY
53 W. Jackson Blvd.
Telephone: Harrison 1406

NEW ORLEANS, LA.

NEW ORLEANS, LA.

2nd PORT, U. S. A.

All cement warehouses, low insurance, low handling costs.

Located on Mississippi River—Shipside connection.

Electrical unloading and piling devices provided to eliminate damage

in handling.

Excellent switching connections, with all lines entering New Orleans.

INDEPENDENT WHE. CO., Inc.

New Orleans, La.

N.F.W.A.—(See page 49)

W. W. Coe,
ChicagoWalter Lawson,
Rockford, Ill.

Waterways and Terminals

(Continued from page 21)

the possibilities. Develop them. Work with some distant terminal operator already established, exchanging business with him—and tell the world about your water facilities in "DandW" Directory and throughout the year.

Shippers everywhere have become water-minded . . . "DON'T WATCH THE SHIPS GO BY.—STOP THEM AT YOUR DOCK."

Try these out on your Geography. . . .

1. Name the largest city in the world not on navigable water.

2. Which of the 48 states has the longest coast line? We will make it easy for you, . . . The answers are on page 70.

Barge Scarcity Increases

Scarcity of steel barges for movement of freight out of the Pittsburgh area is increasing on account of long hauls of freight.

There is a heavy shipment of pipe and all types of wire products into the Southwest.

These carriers go by way of the Ohio and Mississippi Rivers to New Orleans, thence by way of the Intracoastal Canal to Houston, where the freight is reshipped by rail into interior points. Barges are absent from this port for a period of 70 days.

Complete tonnage figures for 1936 are not available at this writing but advance information from all sources show record-breaking volume everywhere.

Ports on the St. Lawrence and Great Lakes have had more ships and more tonnage than ever reported.

The Ohio and Mississippi Rivers and tributaries show all-time highs.

Atlantic Coast, Gulf, and West Coast have fallen in line and shippers everywhere are cutting their transportation costs by the use of waterways.

(Concluded on page 67)

NEW ORLEANS, LA.

E. B. FONTAINE, Pres. & Mgr.

Commercial Terminal Warehouse Company

INCORPORATED

Modern Merchandise Warehouses

A dependable agency for the distribution of merchandise and manufactured products.

Storage Cartage Forwarding Distributing
Bean Cleaning and Grading Fumigating

Office 402 No. Peters Street
NEW ORLEANS

LOUISIANA

NEW ORLEANS, LA.

Douglas Shipline Storage & Douglas Public Service Corps.



New Orleans, La.
Sprinklered storage—
1,050,000 square feet.
Mdse. and Furniture.
Switch track capacity
—60 cars.
Nine warehouses conven-
ient to your trade.
Loans made against
negotiable receipts.
Trucking Department
operating 55 trucks.
Insurance Rates 12c
to 22c.

Represented by
Distribution
Service, Inc.
New York Chicago
San Francisco

NEW ORLEANS, LA.

PELICAN STORAGE & TRANSFER

201 NORTH FRONT ST.

Complete Warehousing & Distribution Service.
Low Insurance . . . Switch Track Facilities
Motor Freight Terminal . . . Fumigation

NEW ORLEANS, LA.

Standard Warehouse Co., Inc.

100 Poydras St., New Orleans, La.



Represented by
Associated Warehouses, Inc.
CHICAGO NEW YORK
Paul O'Dea A. E. Hoff
Franklin 6263 Penna 6-5345
Complete Warehousing Service

BANGOR, MAINE

McLAUGHLIN WAREHOUSE CO.

Established 1875 Incorporated 1918

General Storage and Distributing



Rail and Water Con-
nection—Private Siding
Member
American Chain of War-
ehouses
American Warehousemen's
Association
National Furniture Ware-
housemen's Association



BALTIMORE, MD.

For Details See Directory Issue
Distribution and Warehousing

BALTIMORE FIDELITY WAREHOUSE CO.

T. E. WITTERS, President

Baltimore's Most Modern Merchandise Warehouses
Rail and Water Facilities
Pool Car Distribution—Storage—Forwarding
Private Siding Western Maryland Railway

BALTIMORE, MD.

THOMAS H. VICKERY, President
E. E. BACHMANN, Sec'y and Mgr.
INCORPORATED 1905

BALTIMORE STORAGE CO.

N.W. Cor. Charles and 26th Sts.

MODERN FIREPROOF WAREHOUSE

MEMBER



EVERY FACILITY FOR THE HANDLING OF
YOUR SHIPMENTS

Exclusive Agents Maryland and Vicinity
for

AERO MAYFLOWER TRANSIT CO.

VANS COAST TO COAST CANADA AND MEXICO

BALTIMORE, MD.

Main Office: 400 Key Highway Established 1898
Branch Office: N. Y., Wash., Phila., Norfolk

DAVIDSON

TRANSFER AND STORAGE CO.

Offering the most complete Moving, Hauling and Freight Service in Baltimore
Handling Distribution of Nationally Known Products for 38 Years
Fleet of Delivery Trucks Covering City and Vicinity Twice Daily
"U. S. Customs Bonded Drymen"
Member of N.F.W.A.—A.V.L.—M.F.W.A.

BALTIMORE, MD.

FIDELITY

STORAGE CO.

2104-68 MARYLAND AVE.

Your Clients Efficiently Served
All Collections Promptly Remitted

MOTOR FREIGHT SERVICE

Household Goods Pool Car Distribution Merchandise
Maryland Furniture Warehousemen's Association
National Furniture Warehousemen's Association

Baltimore's Modern Fireproof Warehouse

MARTIN J. REILLY, PRES.

A. BERNARD HEINE VICE-PRES.

BALTIMORE, MD.

McCORMICK WAREHOUSE COMPANY

LIGHT AND BARRY
STREETS

BALTIMORE, MD.

Concrete sprinklered warehouse centrally located.
Private siding handling CL shipments via B&O,
WM R.R. and PENN R.R. Low storage and
insurance rates. Negotiable receipts issued.
Pool car distribution. Motor truck service.
Baltimore Port rates on CL via M & M T Co.,
from New England.

BALTIMORE, MD.

First Class Facilities for First Class Service
RUKERT TERMINALS CORPORATION
1409-17 THAMES STREET BALTIMORE, MARYLAND
8 MAJOR SERVICES CO-ORDINATED—Stevedoring . . . Cargo superintendence . . . Weighing and sampling . . . Custom house brokerage . . . Forwarding . . . Warehousing . . . Poolcar distribution . . . Financing.

BALTIMORE, MD.

Terminal Warehouse Co.

Operating four Modern Warehouses on tracks of Pennsylvania Railroad Company.

Trucking Storage
Pool Car Distribution
Financing Bonded Space

Founded
1893



Resources
\$750,000

WAREHOUSE

BOSTON, MASS.

**BANKERS
WAREHOUSE COMPANY**

General Offices: 24-32 Farnsworth Street
GENERAL MERCHANDISE

Free and Bonded Storage
N. Y., N. H. & H. Private Siding

Pool Car Distribution
Member Mass. W. A.

BOSTON, MASS.

CLARK-REID Co., INC.

GEO. E. MARTIN, President

GREATER **BOSTON** SERVICE

HOUSEHOLD GOODS STORAGE—PACKING—SHIPPING

OFFICES { 380 Green St., Cambridge
83 Charles St., Boston

Mass. F.W.A. Conn. W.A. N.F.W.A. A.V.L.

BOSTON, MASS.

CONGRESS STORES, INC.

38 STILLINGS ST.

PERSONAL
SERVICE

GENERAL
MERCHANDISE STORAGE

CENTRAL
LOCATION

Pool Car Distribution

Sidings on N. Y., N. H. & H. R. R.

Protected By
A.D.T. Service

Member
Mass. Warehousemen's Assn.

BOSTON, MASS.

Established 1896
PACKING MOVING
D.W. **DUNN** CO.
STORING SHIPPING
COMPLETE WAREHOUSING FACILITIES
CONTAINER SERVICE
48 Bromfield St. Member Mass. W. A. May. W. A. 3175 Washington St.

BOSTON, MASS.

FEDERAL WAREHOUSE, INC.

34-38 MIDWAY ST., BOSTON, MASS.

Storage Capacity, 100,000 Sq. Ft.

Low insurance rate, direct track connection N. Y., N. H. & Hartford R. R.
General Merchandise. Storage and distribution. Negotiable and Non-negotiable warehouse receipts. Space reserved for merchandise requiring non-freezing temperature.

Pool Car Shipments — Auto Truck Service
William F. Heavey, President and General Manager
Member American Warehousemen's Assn.

BOSTON, MASS.

CHARLES RIVER STORES
131 Beverly Street
Boston and Maine R. R.

ALBANY TERMINAL STORES
137 Kneeland Street
Boston and Albany R. R.

FRANCIS FITZ WAREHOUSE
30 Pittsburgh Street
N. Y., N. H. and H. R. R.

DIVISIONS OF

**FITZ WAREHOUSE
AND
DISTRIBUTING CO.**

GENERAL MERCHANDISE
STORAGE

Free and Bonded Space Pool Car Service

Successors to

FRANCIS FITZ CO. AND THE GENERAL
STORAGE DIVISION OF QUINCY MARKET
COLD STORAGE AND WAREHOUSE CO.

Rail and Motor Truck Deliveries
to All Points in New England

Represented by
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO
11 WEST 42ND ST. PENN. 6-0968 1525 NEWBERRY AVE. MON. 5531

BOSTON, MASS.

Hoosac Storage and Warehouse Company

Lechmere Square, East Cambridge, Mass.

FREE AND BONDED STORAGE

Direct Track Connection B. & M. R. R.

Lechmere Warehouse, East Cambridge, Mass.

Hoosac Stores, Hoosac Docks, Charlestown, Mass.

Warren Bridge Warehouse, Charlestown, Mass.

BOSTON, MASS.

WIGGIN TERMINALS, Inc.

50 Terminal St.

Boston (29)

Mass.

STORAGE

B. & M. R.R.
Mystic Wharf.
Boston

N. Y., N. H. & H. R.R.
E. Street Stores
South Boston

BOSTON, MASS.

C. E. Nichols, President
Frank Driscoll, Manager

"FISKE WHARF SERVICE"—obtainable only at
FISKE WHARF STORES

MERCHANTS WAREHOUSE CO.
453 Commercial St. Boston Phone Cap. 7760

STORAGE
32 Separate Fireproof Stores.
140,000 sq. ft. Free and Bonded Space.

DISTRIBUTION
Pool Car Service, Forwarding,
Metropolitan Truck Delivery,
Office Space Available.

RESPONSIBILITY
Property Owned—No Encumbrance.
Private Siding, Union Freight R.R. Delivery
A.W.A. M.W.A.
American Chain of Warehouses, Inc.
250 Park Ave., N. Y. C. 53 W. Jackson Blvd., Chicago

BOSTON, MASS.

Established 1830

D. S. WOODBERRY CO.
P. O. Box 57, North Postal Station, Boston.
FORWARDERS & STORAGE
Pool Car Distribution Specialists for New England
Boston & Maine R. R. Siding

N.F.W.A.—(See page 49)



George Lentz,
Winston-Salem, N. C.

(Concluded from page 64)

The steamship F. D. Underwood, Buffalo, last month loaded a \$2,000,000 cargo of aluminum at Ogdensburg to be discharged at Milwaukee and Chicago. Shipping men said this was one of the most expensive cargoes ever shipped on the Great Lakes . . .

Upward Ship Rate Trend

With less than 30 days remaining before the expiration of a majority of the contract rates of the various trans-Atlantic steamship conferences, it is stated there is a possibility of higher ocean freight rates in connection with commitments for shipments after Jan. 1.

Some discussion of higher rates has already taken place among a large number of important commodities. Rate increases ranging from minimum of 7½% to 20% are contemplated.

FALL RIVER, MASS.

BOSTON, MASS.
NEW BEDFORD, MASS.
PROVIDENCE, R. I.
NEWPORT, R. I.
Direct R. R. Siding N. Y., N. H. & H. R. R.

Keogh Storage Co.
Gen. Offices: Fall River, Mass.
Gen. Merchandise Storage
and Pool Car Distribution
Local and Long Distance Trucking.

FALL RIVER, MASS.

Mackenzie & Winslow, Inc.
78 Fourth St.
General Merchandise
STORAGE AND DISTRIBUTION—POOL CAR SHIPMENTS
DIRECT N. Y., N. H. & H. R. R.—MEMBERS A. W. A.

NEW BEDFORD, MASS.

600,000 Sq. Ft. FLOOR SPACE
MODERN BUILDINGS COMBINED
WITH A COMPLETE SERVICE FOR
THE STORAGE AND DISTRIBUTION
OF GENERAL MERCHANDISE.
**STORAGE AND INDUSTRIAL SPACE
FOR RENT OR LEASE**
Furniture Storage, Packing & Shipping
NEW BEDFORD STORAGE WAREHOUSE CO.
MAIN OFFICE — 152 FRONT STREET

PITTSFIELD, MASS.

T. ROBERTS & SONS, INC.
Local and Long Distance Furniture Moving
Fireproof Storage Warehouses
Household Goods Storage — Packing — Shipping
Merchandise Storage and Distribution
Pool Car Distribution
DIRECT R.R. SIDING B. & A. R.R. OR ANY R.R.

SPRINGFIELD, MASS.

**Atlantic States Warehouse
and Cold Storage
Corporation**
385 LIBERTY ST.
General Merchandise and Household Goods Storage
Cold Storage for Butter, Eggs, Poultry, Cheese, Meats
and Citrus Fruits
B. & A. Sidings and N. Y., N. H. & H. R. R. and
B. & M. R. R.
Member { A. W. A. Daily Trucking Service to
M. W. A. suburbs and towns within
a radius of fifty miles.

SPRINGFIELD, MASS.

E. G. Mooney, Pres. R. C. Reardon, Mgr.

Hartford Despatch and Warehouse Co.
214 Birnie Avenue
STORAGE AND DISTRIBUTION DAILY THROUGHOUT CON-
NECTICUT AND MASSACHUSETTS, PRIVATE SIDING.
SPECIAL FACILITIES FOR MOVING, PACKING AND SHIP-
PING OF HOUSEHOLD EFFECTS. WAREHOUSES AT
BRIDGEPORT, CONN., AND HARTFORD, CONN.
Member of A.W.A., N.F.W.A., A.C.W., A.P.L.

DETROIT, MICH.

**Central Detroit Warehouse**

Located in the heart of the wholesale and jobbing district, within a half-mile of all freight terminals. Modern buildings, lowest insurance rate in city.

Michigan Terminal Warehouse

Wyoming and Brandt Avenues

Modern concrete buildings, fully sprinklered, serving the west side of Detroit and the city of Dearborn. Specializing in heavy and light package merchandise and liquid commodities in bulk. Connected directly with every railroad entering the city.

Central Detroit Warehouse Co.

Fort and Tenth Streets, Detroit, Mich.

New York, N. Y.—250 Park Avenue—Room 826
Chicago, Ill.—33 W. Jackson Blvd.—Room 1010

DETROIT, MICH.

efficient
dependable

WAREHOUSING

Cold and Merchandise Storage—The only Detroit Warehouse combining direct rail, highway and marine shipping connections.

DETROIT HARBOR TERMINALS, INC.

4461 JEFFERSON AVENUE DETROIT, MICHIGAN
Eastern Office: 76 Beaver Street, New York City

DETROIT, MICH.

Henry & Schram Storage & Trucking Company

"The Warehouse of Service"

Merchandise Storage—General Trucking
Car Load Distribution

Private Siding on

Wabash—Canadian Pacific—Pennsylvania
Pere Marquette Railways

Cartage Agents Wabash and Canadian Pacific Railways

"Your Interests Are Always Ours"

1941-63 W. Fort Street Detroit, Michigan

N.F.W.A.—(See page 49)

E. M. Smith,
Detroit.



Kraft-Phenix Corp. Says It Is Aloof from Robinson-Patman Statute Because Interstate Sales Are to a Wholesaler

(Washington Correspondence): Spotting of warehouse stocks may solve a troublesome problem of distribution for manufacturers who have a nationwide market, the problem being how to serve the trade in many States without running into the multiple restraints which have been imposed by Congress upon interstate business.

Test of the efficacy in this respect of spotting stocks will come through a proceeding brought by the Federal Trade Commission against Kraft-Phenix Cheese Corporation, charging violation of the Robinson-Patman "price discrimination" Act. The cheese company concentrates stocks in warehouses throughout the country for the convenience of trade in the immediate area, but the distribution is made by a sales subsidiary incorporated under the name of Kraft Associated Distributors, Inc.

The Robinson-Patman Act applies only to sales to retailers made in interstate commerce. Kraft-Phenix contends the law is not applicable to its operations because the only sales it makes in interstate commerce are to the distributing company, which is a wholesaler. The distributing company sells to retailers entirely within the State where the warehouse, in each instance, is located. Unless it is possible to charge the parent company with the sales made by its subsidiary—a distinct corporate entity—Kraft-Phenix is not subject to the statute.

The need for spotting warehouse stocks of cheese and its allied lines, and the method of operation, are described in the company's answer to the FTC citation, which states:

"Respondent [Kraft-Phenix] alleges that said salad products and many of said package cheese products are perishable or semi-perishable and therefore cannot be most advantageously sold through ordinary wholesale grocery channels; that accordingly several years ago respondent caused to be organized its corporate subsidiary, Kraft Associated Distributors Incorporated, a Delaware corporation, which now owns and operates in excess of 140 branch offices and warehouses located in various sections of the United States, at all of which said subsidiary carries a stock of cheese, cheese products, including loaf cheese and package cheese and salad products manufactured by respondent, for sale to retailers in the area adjacent to each branch office; that the method used at each and all of said branch

(Concluded on page 70)

DETROIT, MICH.



Ferry Ave., E. and Grand Trunk Railway

Local, regional and storage-in-transit service, offering every facility known to modern distribution.

New
Ultra-Modern
Plant

Trunk Line
Terminal
Complete Service

Continent-wide Connections

DETROIT, MICH.

"Located Heart Jobbing District"

RIVERSIDE STORAGE & CARTAGE CO.

Cass and Congress Sts., Detroit, Mich.
54 Years' Satisfactory Service
HOUSEHOLD GOODS AND MERCHANDISE STORAGE
MOVING — PACKING — SHIPPING
PERSONAL SERVICE GUARANTEED
Members A. W. A.—N. F. W. A.

DETROIT, MICH.

SERVICE

For complete warehousing service in Detroit use and depend on U. S.

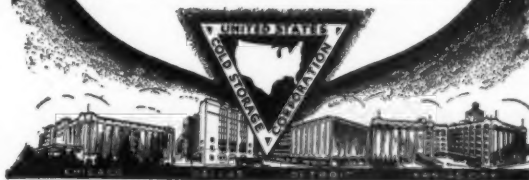
...

United States Warehouse Co.

1448 WABASH AVENUE
DETROIT, MICHIGAN

UNITED STATES COLD STORAGE CORP.
OPERATING

United States Cold Storage & Ice Co., Chicago
United States Cold Storage Company, Dallas
United States Warehouse Company, Detroit
United States Cold Storage Company, Kansas City



DETROIT, MICH.

John F. Ivory Stge. Co., Inc.

MOVING—PACKING—SHIPPING
STORAGE—PRIVATE SIDING

6554 Hamilton Ave., Detroit, Mich.

DETROIT, MICH.

JEFFERSON

TERMINAL WAREHOUSE

Detroit 1900 E. Jefferson Ave. Michigan

MERCHANDISE WAREHOUSING
and DISTRIBUTION

Our reinforced concrete building, centrally located, assures very prompt delivery of goods to our patrons' customers. Desirable offices for rent. Quick service on pool cars. Prompt reshipments and city deliveries by our own motor trucks.

DETROIT, MICH.

Wolverine Storage Company, Inc.

11850 E. Jefferson Ave.

STORAGE and MOVING
PACKING and SHIPPING

Members N. F. W. A.

FLINT, MICH.

CENTRAL WAREHOUSE CO.

WATER AND SMITH STS.

COMPLETE WAREHOUSING SERVICE

SPRINKLERED RISK G. T. TRUCKAGE

DETROIT, MICH.

OWL MOVING and STORAGE CO.
6347 MACK AVE.

Interstate Common Carrier of Household Goods.
Operating in 33 States and the District of Columbia.
Every Shipment insured.

Member of the Interstate Movers Association, Inc.

GRAND RAPIDS, MICH.

A COMPLETE WAREHOUSING AND
DISTRIBUTING SERVICE

COLUMBIAN STORAGE & TRANSFER Co.

Approximately 75% of All Commercial Storage
in Grand Rapids Handled Thru Columbian

Represented by
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO
11 WEST 42ND ST. PHIN & CO. 1515 NEWBERRY AVE., MON. 3531

LANSING, MICH.

"Center of Michigan"
FIREPROOF STORAGE CO.

H. H. HARDY, Manager
SERVICE—SAFETY—SATISFACTION—GUARANTEED
MOVE—PACK—CRATE—TRANSFER
FIREPROOF WAREHOUSE—PRIVATE SIDING
Merchandise Storage—Pool Car Distribution
Member of A. W. A.

LANSING, MICH.

LANSING STORAGE COMPANY

The only modern fireproof warehouse in
Lansing exclusively for household storage.
RUG—TRUNK—SILVER VAULTS

WE KNOW HOW
440 No. Washington Ave.
(Member of Allied Van Lines, Inc.)



SAGINAW, MICH.

CENTRAL WAREHOUSE CO.

GENERAL WAREHOUSEMEN AND FORWARDERS

MERCHANDISE DISTRIBUTION

SPRINKLER SYSTEM

Private Sidings M. C. R. R.

SAGINAW, MICH. Office
N. Michigan Ave.

MANKATO, MINN.

BEN DEIKE

Transfer and Storage

We Guarantee Safety, Security and Satisfaction

General office, 402-404 Pike St.

Merchandise and Household Goods — Bonded Warehouses
Long Distance Truck Service—Your Goods Insured in Transit

MINNEAPOLIS, MINN.

**KEDNEY
WAREHOUSE COMPANY***Complete Distribution Service***MINNEAPOLIS**

617 Washington Ave., N.

Operating 200,000
square feet of mod-
ern, low insurance
rate space. Pro-
tected by A.D.T. fire
alarm system. Pri-
vate railroad sid-
ings on G.N. and
C.B.&Q. Motor trucks
for prompt store-
door delivery.

ST. PAUL

8th & Johns St.

Operating 150,000
square feet of mod-
ern reinforced con-
crete space, with
sprinkler protec-
tion. Private rail-
road sidings on G.N.
and C.B.&Q. Motor
trucks for prompt
store-door delivery.



ST. PAUL, MINN.

MINNEAPOLIS, MINN.

ANCHOR WAREHOUSE, Inc.
BONDED - FIREPROOF WAREHOUSE

Exceptional Facilities—Modern Offices
Efficient Service, Free Switching from All Railroads
Ideally located in the heart of the Wholesale
and Shipping District
Offering a complete Warehousing and Distribution Service
Inquiries Solicited
730-740-750
Washington Ave., North

MINNEAPOLIS, MINN.

**The Northwestern
TERMINAL**
PUBLIC BONDED WAREHOUSE
WITH COMPLETE FACILITIES

OPERATING OFFICE: 800 Stinson Boulevard, Minneapolis, Minn.
Members, Minn. W.A.

N.F.W.A.—(See page 49)

James Kane,
Chicago

(Concluded from page 68)

offices for the sale of said merchandise is commonly known as 'peddling,' that is to say, motor trucks owned by said subsidiary are loaded at the warehouse with said merchandise and driven regularly over established routes to retail stores in the areas served by the respective branch offices and at each retail store on each route orders are solicited and when received the merchandise is thereupon delivered to the retailer from the truck.

"Respondent alleges that by this system said products manufactured by respondent are delivered fresh to the store door of the retailers by efficient, trained salesmen, who at the time of delivery pick up any stale or unattractive merchandise on the retailers' shelves and generally perform such services as are necessary to keep the merchandise manufactured by respondent on the retailers' shelves in fresh, attractive and salable condition, thereby promoting the sale of said products to the consuming public and maintaining the good will of respondent as a manufacturer of merchandise of high quality.

"Respondent alleges that all sales of Kraft Associated Distributors are made in the course of local or intrastate commerce."—(James J. Butler.)

Answers: (See page 64)

1. Indianapolis.
2. Michigan.

MINNEAPOLIS, MINN.

ST. PAUL, MINN.

Organized for Service

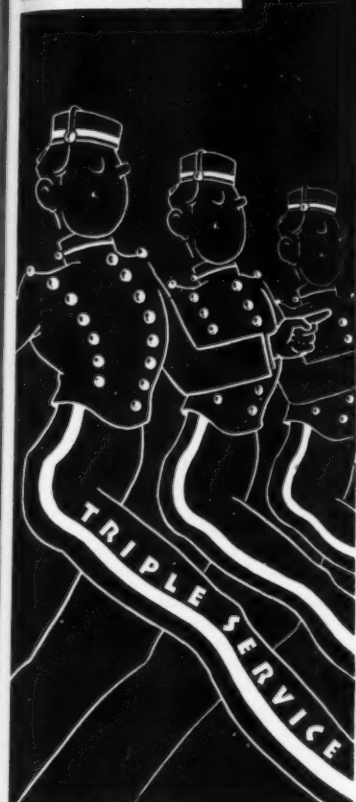
Three splendid warehouses, operating individually but under one general management with the same capable executives identified with the successful conduct of this business since its founding. Three separate organizations that can be used singly or in combination to efficiently warehouse and distribute your merchandise in the large Northwestern market.

Three locations in the Twin Cities. One virtually on the boundary line between Minneapolis and St. Paul, and one in the very heart of each city, enabling us to offer "triple service" in this thriving and important market.

"Triple service" is more than three strategic locations, however. Let us tell you more about it. Your inquiry is cordially invited.

MINNEAPOLIS TERMINAL WAREHOUSE CO.
618 Washington Avenue, N., Minneapolis (Downtown Jobbing District)
ST. PAUL TERMINAL WAREHOUSE CO.
8th and Locust Streets, St. Paul (Downtown Jobbing District)
MIDWAY TERMINAL WAREHOUSE CO.
2295 University Avenue, St. Paul (Minnesota Transfer Industrial District)

Members: American Warehousemen's Assn. Represented by: Associated Warehouses, Inc., New York and Chicago



ROCHESTER, MINN.

903 6th St., N. W. Phone 5386

CAREY TRANSFER & STORAGE

Bonded Warehousemen
Complete Warehouse Facilities for Storage & Distribution
MERCHANDISE

Experienced Organization and Equipment for
MOVING, PACKING AND STORING
HOUSEHOLD GOODS
Modern Buildings, Private Siding C&WRR Co.

MOTOR TRUCK SERVICE

Assoc. Minn. N.W.A.—Mayflower Warehousemen's Assn.

N.F.W.A.—(See page 49)



The Yonkers, N. Y.,
delegation

WHEN WRITING ADVERTISERS MENTION DISTRIBUTION AND WAREHOUSING

CENTRAL WAREHOUSE COMPANY



★ It's a natural!

Selecting Central Warehouse in St. Paul is the natural and logical thing to do if location, efficiency and economy mean anything to you!

Located just between the main business sections of Minneapolis and St. Paul, we are only twelve minutes from the center of each city.

We have here a \$2,000,000 investment in building and equipment.

No telephone tolls from either city. We operate a joint railway station, with direct connections with all lines entering the Twin Cities.

An ideal location for your midwestern branch office—you can enjoy complete facilities and service without investment.



CENTRAL

Warehouse Company
739 Pillsbury Ave. St. Paul, Minn.

Represented by Distribution Service, Inc.

JACKSON, MISS.

MEMBER

RICKS STORAGE CO.
BONDED WAREHOUSEMEN
Complete Warehouse Facilities for Storage and Distribution
MERCHANDISE
Experienced Organization and Equipment for
MOVING PACKING and STORING
HOUSEHOLD GOODS
Modern Buildings, Sprinklered, Private Siding ICCR Co.,
Low Insurance Rate
MOTOR TRUCK SERVICE

JEFFERSON CITY, MO.

**TRANSPORTATION
WAREHOUSING**
Commerce Cartage Co.
MOVING AND STORAGE HOUSEHOLD GOODS—LOCAL AND LONG DISTANCE MOVING—WAREHOUSING AND DISTRIBUTION OF POOL CAR SHIPMENTS—WE SERVE TERRITORY WITHIN 50-MILE RADIUS JEFFERSON CITY.
Member of National Furniture Warehousemen's Association

JOPLIN, MO.

Tonnies Transfer & Storage Co.
1027-41 Virginia Ave. Joplin, Mo.
Distribution and storage of merchandise
Fireproof warehouses—Motor van service
On railroad siding—Lowest Insurance rates
PACKING—STORAGE—SHIPPING

KANSAS CITY, MO.

In Kansas City
**it's the A-B-C FIREPROOF
WAREHOUSE CO.**
Distribution Cars are so handled as to carefully safeguard your own interests and those of your customers.
Three Fireproof
Constructed Warehouses
Agents
Allied Van Lines, Inc.

KANSAS CITY, MO.

Merchandise Storage - Low Insurance Rates - Pool Car Distribution - Freight Forwarders and Distributors via rail or daily motor service to entire Southwest.
ADAMS
TRANSFER & **ADAMS STORAGE CO.**
MEMBER OF American Chain of Warehouses American Warehousemen's Association • Traffic Club Chamber of Commerce
"Surrounded by the Wholesale District"
UNION TRUCK TERMINALS
228-236 West Fourth St.

KANSAS CITY, MO.

50TH YEAR
CENTRAL STORAGE CO.
Efficient, Complete Merchandise Warehousing Service
Office—1422 ST. LOUIS AVE.
(West 10th Street)
In Center of Wholesale and Freight House District

KANSAS CITY, MO.

Financing
CROOKS TERMINAL WAREHOUSES
"Kansas City's Finest Warehouses"
LOWEST INSURANCE RATES
BEST RAILROAD FACILITIES
IN THE HEART OF THE FREIGHT HOUSE AND WHOLESALE DISTRICT
Operating
Brokers' Warehouse, Security Warehouse, Terminal Warehouse

KANSAS CITY, MO.

W. E. Murray Transfer & Storage Co.
Modern Fireproof Warehouse with private siding on terminal tracks connecting all Railroads.
Distribution and Storage Merchandise and H. H. Goods.
Pool Cars Promptly Handled and Reports Mailed in.
Motor Truck Service, City and Interurban.
LOWEST INSURANCE RATE IN KANSAS CITY
2015-17-19 Grand Ave. Kansas City, Mo.

KANSAS CITY, MO.

Established 1903
THE ONLY WAY TRANSFER & WAREHOUSE CO.
1400-10 ST. LOUIS AVENUE
Merchandise Storage—Cartage—Pool Car Distribution
Offices in following Cities
NEW YORK CITY CHICAGO
82 Beaver Street 519 W. Roosevelt Rd.
8 Eekman 3-8065 Canal 5748

KANSAS CITY, MO.

MEMBER: A.W.A.—MIDW.—K.C.W.A.
▼▼▼ **RADIAL** ▼▼▼
WAREHOUSE COMPANY
Every facility for efficient warehousing and distribution of merchandise
Track and Truck connections to all points with Free pickup and delivery service

"We've Heard that"—

(Concluded from page 20)

Consignment Points o o o

A concrete example of some of the sudden shocks warehousemen receive ever so often is suggested in a recent bulletin issued by a West Coast sugar refinery which does a large business in shipload quantities via Intercoastal Lines to Gulf and inland waterways and to the Atlantic Seaboard via the New York State Barge Canal and the Great Lakes. We read:

"In all markets except the eleven western States a charge of 7½c. per 100 pounds over basis will be made on less than carload deliveries made from the following consignment or concentration points—Omaha, Wichita, Chicago, Milwaukee, Detroit, Cleveland, Buffalo, Pittsburgh. We consider the above named points adequate to insure prompt execution of orders and to give satisfactory service to the trade, while effecting certain savings in freight cost, which we have borne. All other consignment points will be discontinued. Such stocks as are now on hand at points other than those above designated will be disposed of at our basic price and not replenished."

Currency Devaluation o o o

Devaluation of the franc and the lira accompanied by the tri-partite currency stabilization agreement and the immediate promulgation of substantial reductions in tariffs by France and Italy will, it is expected, serve to stimulate trade.

France recently reduced duties on raw materials, semi-manufactured and manufactured goods 20, 17 and 15%, respectively, from existing rates.

The British Government has urged the removal of artificial trade restrictions such as quotas and exchange control. Thus a broad base is steadily being created for the general unshackling of world trade.

Black Strap o o o

The Interstate Commerce Commission has authorized fourth section relief in the establishment of a rate not lower than 25 cents per 100 pounds on black strap molasses in tank carloads from Mobile, New Orleans and other group 1 points in Louisiana to Cincinnati.

Motor Carrier Act o o o

Many are questioning the present cut-throat competition in the motor freight field brought about by independent operators who have filed individual tariffs.

(Continued on page 74)

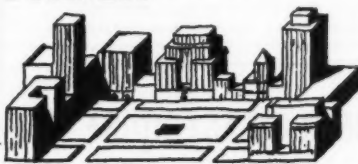
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Merchandise Warehouses
at
TWO BIG MARKETS
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TRACKAGE
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To All Points with
FREE Pickup and Delivery.

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TERMINAL WAREHOUSES, Inc.
MERCHANDISE AND COLD STORAGE
LOW INSURANCE
MONEY ADVANCED ON STAPLE COMMODITIES
SEE DIRECTORY PAGE 192

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COLUMBIA TERMINALS COMPANY
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\$3,000,000.00 INVESTED . . . TO SERVE YOU

Merchandise storage with low insurance, and guaranteed responsibility. Modern Buildings. Large Fleet of up-to-date trucks and trailers.

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Track Connections with All Rail and River Lines.
No Carriage Expense on In or Outbound L.C.L. Shipments.
Low Insurance.

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Lowest Insurance Rates
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Covered railroad docks, capacity 100 cars daily.
Spacious truck docks facing wide streets to speed up service locally and beyond.
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Twenty floors office space in connection.
Our prices comparable with other warehouses in this territory.
Storage available on lease or tariff basis.

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Warehouse Division.
12th Blvd. at Spruce St. St. Louis, Mo.

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Pool Car Distribution

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FREIGHT TRUCK CONNECTION TO ALL
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100,000 Sq. Feet
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35,000 Sq. Feet
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1889 47 Years of Continuous Service 1936

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Fireproof Building... Trackage... Motor Trucks.

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Pool Car Distribution
Direct R. R. Siding, Boston & Maine R. R.

(Continued from page 72)

More rigid enforcement is needed to bring a fair degree of uniformity in rates and a stabilization to eliminate such competition.

It is brought out that such elimination must come through proper and orderly process. The effectiveness of the Act is to a large degree, however, in the hands of the truck operators themselves. If an operator is in violation of the law, it is up to those competitors who are affected directly or indirectly by such illegal operation to file a complaint with the Commission.

Some operators who are the objects of complaint have filed as contract carriers when in reality, it is claimed, they are carrying on common carrier operations. In other words, they have filed a minimum rate, while many of their competing companies are bound by rigid rules and regulations and tariffs.

The order by the I.C.C. for all contract carriers under the Act to file on Dec. 1 copies of their contracts in lieu of schedules of minimum charges is expected to bring to light the true status of every contract carrier. Many of them will probably be classified as common carriers, and this will have the immediate effect of eliminating much of the trouble regarding stabilization, etc., it is contended.

Business Recovery o o o

W. F. Bloor, chief statistician of Goodyear Tire & Rubber Co., in attempting to measure the extent of business recovery, mathematically, states that in the manufacturing industries of America there are only 18% fewer people employed than in 1929. He says further:

Cash income from farms is 27% below the peak.

(Continued on page 75)

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Fireproof Storage Warehouses

195-197 McKINLEY AVE.

Storage, Moving, Packing and Shipping of Fine Furniture
General Merchandise, Storage and Distribution
GEORGE L. BARBER, Mgr.

N.F.W.A.—(See page 49)



H. W. Tanner,
Detroit

(Continued from page 74)

Retail prices are 19% below, but the volume of retail sales was 27% below, and freight car loadings 32% below. The construction industry, which has seen the largest amount of unemployment by any major group, was still slightly less than half what it was in 1929.

There are prospects of a 50% increase in the building industry next year; increases in volume of transportation, in real estate values, in farm income, stock values, wages, corporation earnings, and retail business. Increases in prices, rents and taxes will occur. Income from bonds indicate no change.

More than 2,000,000 automobiles go on the scrap heap this year because of improved conditions. In 1929 less than 9% of the cars were more than seven years old. Now 36% are older models and only 15% of the cars driven this year are 1936 models.

Improvement in business recovery in countries outside the United States is proceeding faster than here. Using 1928 as a base, the world as a whole is 13% above the average, and the United States 3% below it; Japan is 73% above, England 14% above, Germany 9% above, Canada 6% below.

Taxes which absorbed 10% of the national income at the end of the World War now absorb 15%.

Loyalty of Shippers ○ ○ ○

Some traffic managers have a high sense of loyalty to any transportation agency which grants "concessions." The story in that respect is told of David Dunn, general traffic manager of William Wrigley, Jr., Company, Chicago. He believed his company was paying too high domestic rates on the 5,000,000 pounds of imported raw chicle which his company needed annually, as compared with rates on other imported commodities, representing about equal values and shipping hazards.

The chicle rate was finally cut from 63 cents, in effect up to 1934, to 45 cents. It is stated that today Mr. Dunn could get a rate of 39 cents by barge; but to remain loyal to the rails because of their reduction, he still gives them the business. The same story, it is

(Continued on page 76)

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Phone—Bingh: 4391-4392 Office: 178 State Street

N.F.W.A.—(See page 49)



"Wally" Schuck,
Chicago representative of "D and W"

(Continued from page 75)

stated, is applicable to the 5,000,000 pounds chewing gum base from the East.

Another example of such loyalty concerns truck lines. The eastern railroads kept chewing gum on their third-class rating with confectionery, even though there was no risk in handling. Then, about three years ago, several motor truck lines changed chewing gum to fourth class in eastern territory and the company immediately turned most of their eastern shipments to these truck lines. Mr. Dunn says he will continue with these truck companies regardless of what the rails do.

Credit Rating o o o

A special committee of Central Motor Freight Association is forming a bureau to provide members with credit ratings of shippers. Thus it is expected that firms with poor ratings will be prevented from shifting from one trucking operator to another without detection. The plan should benefit shippers also, as they would be able thus to supply credit information to one source.

Canning Turkeys o o o

Western poultry cooperatives are rapidly entering the canned chicken field as a means of moving their members' surplus stocks into a wider market than is possible in the fresh meat trade. For the most part the packs seem to be coming through in glass and in the shape of ready-to-serve specialties.

Success with chickens has provided inspiration to the Northwestern Turkey Products Association to attempt an experimental pack of turkeys at Salt Lake City.

Yuban Coffee o o o

Yuban coffee, hitherto manufactured and distributed by Arbuckle Bros., has become the property of Paton Corporation of New York. Arbuckle, the first to introduce packaged coffee, 75 years ago, will continue in the coffee business as importers, roasters and distributors of another of its own packaged brands. Paton Corporation, a leading honey distributor, is making its initial entry into the coffee field.

A Use for the Useless o o o

Like the once despised coal tar, which the makers threw away, cactus may become just as important.

(Concluded on page 79)

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28 Fulton Street Brooklyn, N. Y.
We specialize in shipments from correspondents, collections handled.
Our strictly fireproof building is ideally equipped for storage of
household goods and valuables.
We pack goods for shipment, and have a fleet of vans for prompt
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Established 1860



Peter F. Keilly's

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"First Moving Vans in America"

Modern Depository for the Storage of
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BUFFALO, N. Y.

70,000 SQ. FT. OF STORAGE SPACE

SHIPPERS EXPRESS TERMINAL & WAREHOUSE

General Office: 135 SCOTT STREET

Merchandise storage—Fireproof building—Lehigh Valley
Railroad siding—Pool car distribution—Daily delivery to
Western New York and Canadian Points by our own large
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Cargo-Handling
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96 Car Track
Capacity
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Moving, Packing, Storing and Shipping of Household Goods. 10
blocks from the World's Fair Corona Freight Station, serving Jackson
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Great Neck Storage Co., Inc.
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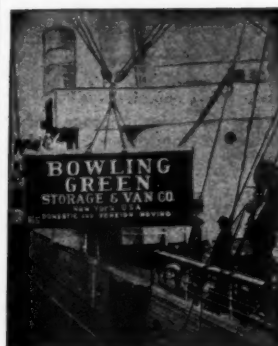
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Route Shipments for Long Island To
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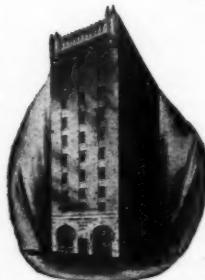
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Two centrally located modern fire-
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handling of your shipments.Sixty-six years of dependable service
is your guarantee in selecting us as
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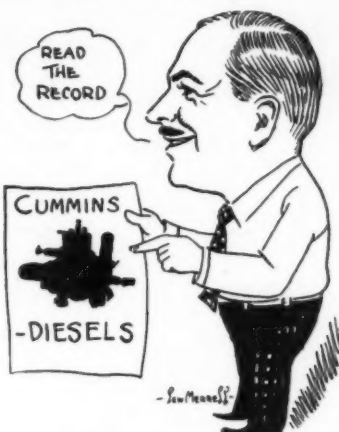
PORTOVAULT

STEEL VAULT STORAGE

1166 SECOND AVE., NEW YORK



N.F.W.A.—(See page 49)



P. E. Letzinger, Columbus,
Cummins Diesel Engine

(Concluded from page 76)

A young Texan whose hobby is chemistry has discovered a way to make the cactus plant produce many useful articles—as canes, gavels, fans, vases, cactus-wicker furniture, etc. He is Horace Akin, and the company just formed by him is Akin Cac-Tex Products Co., Austin, Tex. His process involves removal of the pulp from the cactus stalks and leaves. The fibre then can be transformed into the various products.

Glucose Westbound Export o o o

To compete with export movement of glucose by way of South Atlantic ports to the Orient one of the trans-continental carriers has filed a proposal for reducing the carload rate from 65 to 50 cents a 100 lb. on this commodity when originating in rate basis 4, 5, and 6 points and moving to Pacific Coast ports for export.

At present glucose for export moves to Savannah from principal Illinois origins at a rate of 28½ cents, or \$5.70 a ton. The ocean rate from Savannah to the Orient is \$13, making a combination of \$15.70 a ton. The present rail rate from Illinois origins to the Pacific Coast of 65 cents is equal to \$13 a ton with the ocean rate of \$6.50, making a combination of \$19.50.

Canal Draft o o o

The maximum allowable draft for vessels navigating the Soulonge and Lachine canals in the upper St. Lawrence has been reduced to 13 ft. even. This marks the fourth fall in the draft since July 24, when the draft was 14 ft.

Machines o o o

An increase from 10 to 25 warehouses in one year is reported by a manufacturer—attributed to a general up-turn in the market and to the increased number of salesmen traveling from the home office. At present spot stocks are concentrated in the larger cities to give concentrated selling in more densely populated areas. This company is using stop-in-transit cars more than formerly in its national coverage.

Dry Cell Batteries o o o

In handling its distribution nationally, the policy of a leading dry cell battery manufacturer is to place spot stocks in the smaller cities. This trend is indicated in the increase from 12 warehouses used last year to 34 at the present time.

NEW YORK, N. Y.

DAYTON STORAGE CO., Inc.

Fireproof Warehouses
Modern Equipment
Lift Van Service



Centrally Located
Consign Shipments To Us
Prompt Remittances
1317 Westchester Ave.

NEW YORK, N. Y.

Fireproof Storage Warehouses

Dunham & Reid Inc.

The storing, packing, moving and shipping of Household Goods and Art objects is attended to on a basis of quality. Dunham & Reid Service surrounds the shipper at all times with a greater margin of Safety and Security. Low insurance rates. Prompt remittances. Located in the heart of New York.
216-218 East 47th Street New York City
Members of N. F. W. A., N. Y. F. W. A., V. O. A.

NEW YORK, N. Y.



Unusual Facilities In The Metropolitan Area

We say unusual because we combine—for the New York distribution area—a midtown location with B. & O. sidings the lowest insurance rate and perfected distribution service. Concrete building, supervised sprinkler system throughout. Inbound and outbound carload shipments handled via B. & O. R. R. without cartage or switching expense.

Team truck yard adjoining the building.

Shippers are cordially invited to inspect our plant and consult with us in their warehouse and distribution problems.

A. O. FEIDELSON, Inc.

SUCCESSOR TO B. & O. 26th ST. STORES
ROBERT E. BARRY, Gen. Mgr. Warehouse Division
General Offices—26th St. & 11th Ave.
NEW YORK CITY

Member of Warehousemen's Assoc. of the Port of New York and American Warehousemen's Association

NEW YORK, N. Y.

THE GILBERT STORAGE CO., INC.

Specialists in Pool Car Distribution—Warehouses Located on East and West Side—Fireproof Storage.
Formerly HARLEM STORAGE WAREHOUSE CO., INC.
Executive Office, 30 W. 60th St. West Side Warehouse, 30 W. 60th St.
East Side Warehouse, 211 E. 100th St.
Agent for ALLIED VAN LINES, INC. Nation-wide Long Distance Moving. A National Organization owned and operated by the leading storage warehouse companies in the United States.
Members N. F. W. A., N. Y. F. W. A. and N. Y. S. W. A.

NEW YORK, N. Y.

SEND YOUR BRONX AND WESTCHESTER SHIPMENTS TO
Globe Fireproof Storage Warehouse Co., Inc.



New Fireproof Storage Warehouse
Offices: 810-812 East 170th St.
Members N.F.W.A., N.Y.F.W.A.

NEW YORK, N. Y.

William F. Hahn, Pres. Fred J. Hahn, Sec. & Treas.
STORAGE—MOVING—PACKING
We Specialize in Lift Van Shipments



WEST SIDE BRANCH AND GEN. OFFICE
100-102 WEST 107th ST., N. Y. C.

HAHN BROS.

FIREPROOF WAREHOUSES, INC.

108-120 WEST 107th STREET
AND
231-235 EAST 55th STREET
NEW YORK CITY

Efficient and Capable Organization
Modern Fireproof Buildings
Personal Supervision
Member Mayflower Warehousemen's
Association

NEW YORK, N. Y.

AN ASSOCIATED

LACKAWANNA

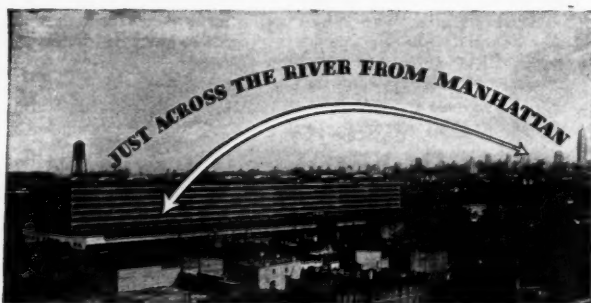
TERMINAL WAREHOUSES, INC.

JERSEY CITY, N. J.

(Six hundred feet from the Manhattan Tunnel Plaza)

SUPERIOR DISTRIBUTION

A stock of your products carried in our Terminal is within 24 hours of your customer's door at any principal point between Boston and Washington, D. C.
• Traffic experts route your shipments via dependable lines at minimum charges. • Side track facilities and L. C. L. Freight station in same building. • Coastal Steamship connections, eliminate unnecessary cartage expense. • Direct Motor Truck Store Door Delivery Service covering wide area. • Pool Car Distribution.
• Modern Building and Minimum Insurance Rates.



NEW YORK, N. Y.

Storage, Distribution and Freight Forwarding
from an Ultra-Modern Free and Bonded
Warehouse.

IDEALLY LOCATED

IN THE VERY CENTER OF NEW YORK CITY

Adjacent to All Piers, Jobbing Centers
and The Holland Tunnel

Unusual facilities and unlimited experience in forwarding and transportation. Motor truck service furnished when required, both local and long distance. Lehigh Valley R.R. siding—12 car capacity—in the building. Prompt handling—domestic or foreign shipments.

MIDTOWN WAREHOUSE, INC.

Starrett Lehigh Bldg.
601 West 26th St., N. Y. C.

N.F.W.A.—(See page 49)



R. G. Taylor, Chicago,
Iden & Deane Co., Inc.

Death Removes J. P. Woodworth; South Bend Executive Was 68

JAMES PARKE WOODWORTH, owner of Woodworth's Storage and Transfer, South Bend, and president of the Indiana Furniture Warehousemen's Association for the past few years, died on Nov. 15 at his home, 103 West Marquette Boulevard, after a brief illness. He was 68 years old.

One of South Bend's most active leaders in religious, fraternal and Boy Scout activities and a charter member of the National Furniture Warehousemen's Association, Mr. Woodworth was born in North Fairfield, Ohio. He removed to South Bend from Hillsdale, Mich., in 1899 and opened a butter and egg business. The storage firm which bears his name was established in 1907. He had married, in 1900, Miss Winnie Murphy, and she and their son and daughter and two grandchildren survive him.

Mr. Woodworth was vice-president of the St. Joseph Valley Council of the Boy Scouts of America and chairman of its camp committee. In 1932 he was awarded an honor coveted by Boy Scout leaders the nation over—the Silver Beaver, presented annually by the national Boy Scout organization to one man in each community who has rendered outstanding service to boyhood. Mr. Woodworth was a 32nd degree Mason, affiliated with South Bend Lodge No. 294, and was a member of the Shrine. He was an Odd Fellow and a member of the Kiwanis Club and other organizations.

David G. Morrison Dies

David G. Morrison, vice-president of Flushing Storage Warehouse Co., Inc., Flushing, N. Y., died at his Jackson Heights home on Nov. 17. A son, Andrew Morrison, is the firm's treasurer.

Born in Dundee, Scotland, on Jan. 31, 1860, Mr. Morrison came to America in 1882 and entered the stone cutting business. He was identified with building, financial and insurance interests and was a former president of the National Curling Clubs of America.

Harmon Is Reelected by Cleveland Local

The Cleveland Furniture Warehousemen's Association at its sixteenth annual meeting, held at the Carter Hotel on Oct. 12, reelected officers as follows:

President, Harry M. Harmon, manager Bramley Co.; vice-president, Belden E. Warner, president Warner Storage, Inc.; secretary-treasurer, William H. Turner, treasurer Lincoln Storage Co.

NEW YORK, N. Y.

Offering a Superior Service at a Reasonable Price

Fireproof Vaults

Electric Van Service

Cold Storage

Separate Vans

Safe Deposit Vaults

Maintaining a modern fireproof building; easily accessible; storing household goods of every kind in separate fireproof rooms, vaults or galleries which are constructed to properly care for goods of value.

Special vaults for silverware and valuables; also vaults of arctic chill for storage of furs, tapestries, rugs, clothing or any other article of value that requires safeguarding from moth ravages.

Special van equipment for transporting goods to and from warehouse and home or out-of-town. Also house-to-house moving.

Fumigating tanks to destroy moth or insects in furniture, rugs or bedding.

Special vans for shipments of household goods to all parts of the world.

Dead storage for automobiles. Batteries are cared for on premises.

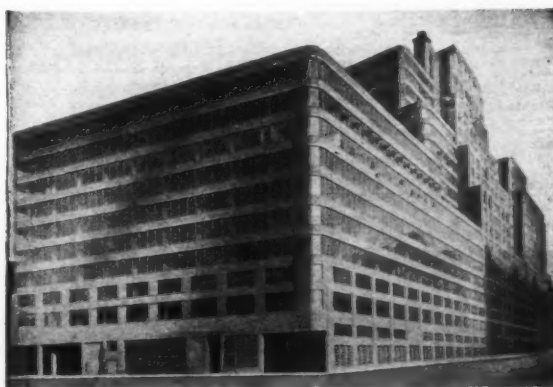
Our experience of 50 years guarantees satisfactory performance.



Lincoln Warehouse Corporation
1187 to 1201 Third Ave., at 69th and 70th Sts.

Alexander Gaw, Vice-President and General Manager
Horace Roberts, Superintendent of Warehouses

STARRETT LEHIGH BUILDING



Look Before You Locate

Starrett Lehigh Building, bounded by West 26th and West 27th Streets and 11th and 13th Avenues, New York City, affords an excellent location for manufacturing and distribution.

IT HAS —

- Lehigh Valley Railroad freight terminal on street level. Freight elevators direct to platform in rail yard.
- Truck elevators to all floors with convenient truck pits, offering street floor facilities throughout the building.
- Floor areas, 52,000 to 124,000 sq. ft. Smaller units may be leased.
- Low insurance rates.
- Live steam for manufacturing purposes.
- Fast passenger elevators.
- Restaurant and barber shop.

INVESTIGATE THE ADVANTAGES OF THIS BUILDING

You will find it easily adaptable as your Eastern manufacturing and distributing plant, sales and display offices. It is situated on wide thoroughfares in the center of Manhattan.

Nationally-known concerns, already occupants of the building, have been able materially to lower their New York operating costs and at the same time increase their efficiency. You, too, can save here.

Starrett Lehigh Building

D. R. CROTSLEY, Manager, 601 West 26th Street
Telephone: CHickering 4-5520

NEW YORK, N. Y.

The National Cold Storage Co., Inc.

OPERATING WAREHOUSES FOR STORAGE OF
PERISHABLE FOOD PRODUCTS

BROOKLYN JERSEY CITY
446 Furman St. 176 Ninth St.

Distribution Facilities Storage in Transit

General Offices: 19 Hudson St., New York

NEW YORK, N. Y.

MEMBER

SANTINI BROS., INC.
Serving Greater New York and All Points in Westchester County
MOVERS—PACKERS—SHIPPERS
General Offices: 1405-11 Jerome Ave.—Tel.: JEROME 6-6000
Four Fireproof Warehouses
3,000,000 CUBIC FEET—POOL CAR DISTRIBUTION

NEW YORK, N. Y.

Seaboard Storage Corporation

New York Office: 99 Wall St.

Distribution in the Metropolitan Area.

Steamship facilities — Railroad connections — Motor truck distribution — One Responsibility.

Port Newark Terminal
Foot of Doremus Ave.

Brooklyn Terminal
Foot of Smith St.

NEW YORK CITY, N. Y.

DISTRIBUTION . . .

General and Cold Storage. Sprinklered Building. Direct track connections N.Y.C., Erie, L.V.R.R. No cartage costs on reshipments. Same day delivery within 50-mile zone.

Terminal Warehouse Company

27th and 28th Streets 11th to 13th Avenue



ROCHESTER, N. Y.

George M. Clancy Carting Co., Inc.
Storage Warehouse

55-85 Railroad Street
General Merchandise Storage • Distribution
Household Goods Storage • Shipping
Pool Cars Distributed and Reshipped
Direct R. R. Siding N. Y. Central
in The Center of Rochester

ROCHESTER, N. Y.

Established 1893

Storage of Automobiles and General Merchandise
N. Y. C. R. R. 10 Car Capacity, Private Siding
Pool Car Distribution Motor Service
Heated Throughout Sprinklered Low Insurance Rate

MONROE WAREHOUSE COMPANY, Inc.
Office: 1044 University Ave.
Member of A. W. A.

ROCHESTER, N. Y.

**ROCHESTER
STORAGE WAREHOUSES, Inc.**

26 N. Washington St.

MERCHANDISE STORAGE • DISTRIBUTION AND
FORWARDING • STORE DOOR DELIVERY

SCHENECTADY, N. Y.

**Schenectady Storage and Trucking
McCormack Highway
Transportation**

Offices: 160 Erie Blvd.

General Merchandise Storage and Distribution
Pool Car Distribution Household Goods
Storage and Moving Long Distance Trucking

SYRACUSE, N. Y.

Fireproof Throughout

Flagg Storage Warehouse Co.
SYRACUSE, N. Y.

Protected by Automatic Sprinkler

Consign your Household Goods Shipments in our care
MOVING — STORAGE — PACKING — SHIPPING
Mdse. Storage Pool Cars Handled
Private Siding

SYRACUSE, N. Y.

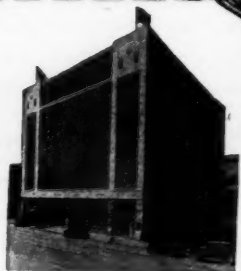
**Sell Profitably in
New York State**

We offer you complete, low-cost
modern warehousing in the dis-
tributing center of New York
State. Motor-freight daily store-
door delivery over large area.

Write for details.

Member AWA, ACW,
NFWA, AVL

Great Northern Warehouses, Inc.
348-360 W. Fayette St., Syracuse, N. Y.



SYRACUSE, N. Y.

DISTRIBUTION KING STORAGE
SINCE 1897

MERCHANDISE

HOUSEHOLD
GOODSMOTOR FRT.
STORE DOOR
DELIVERY

MEMBERS
A.W.A. N.F.W.A.
AGT. A.V.L.

Represented by
Distribution Service, Inc.—New York—Chicago—San Francisco

The Producers of
Certain-Teed Building Materials
select their

Merchandise and Household Goods Warehouses
from the pages of this Magazine

UTICA, N. Y.

BROAD STREET WAREHOUSE, INC.Complete Warehousing
Service

General Merchandise — Cold Storage
Heated Storage
Private Siding and Motor Freight Terminal
Daily Trucking Service to all
Points in New York State

UTICA, N. Y.

Jones-Clark Trucking & Storage Co.
of Utica, N. Y.

The Heart of New York State and natural distributing
point. "Jones of Utica" has distributed Merchandise
and Household Goods for 37 years. Every
modern facility.

Member: N.F.W.A., Allied Van Lines, Inc.

UTICA, N. Y.

Established 1916

Utica Warehouse Co., Inc.

Box 276

Utica, N. Y.

Unexcelled facilities for handling bulk shipments. Storage
in transit on Cotton—Specializing in, Textiles,
Alkalies, Denatured Alcohol. Warehouses on D. L. & W.
and N. Y. C.—Private Sidings—Sprinklered through-
out—Pool Car Distribution—Motor Service.

WHITE PLAINS, N. Y.

J. H. EVANS & SONS, INC.

Office & Warehouse: 253-257 Hamilton Ave.

Household Goods Moving, Storage, Packing, Shipping
Prompt service for any point in Westchester County

Member N.Y.F.W.A.—N.F.W.A.

YONKERS, N. Y.

McCann's Storage Warehouse Co.
3 MILL ST.**Fireproof Storage Warehouse**

Strictly modern in every respect. The largest and latest in West-
chester County—serving entire county.

The Producers of
"Tontine" Rubber Products
select their

Merchandise and Household Goods Warehouses
from the pages of this Magazine

Air Conditioning and Warehousing

(Continued from page 16)

All this may be stated somewhat more technically by saying that the different atmospheres should each have its own *dry bulb temperature* and that it should also have its own *relative humidity*.

There is nothing especially mysterious about dry bulb temperature. If the bulb containing the mercury of a thermometer is left alone—that is, left in its ordinary dry condition—the reading will be a dry bulb temperature. The word *dry* is in contrast to *wet*, when another thermometer is also employed—this one with its bulb kept moist by means of a lamp wick, the other end of which dips into a supply of water. The reading of this thermometer is termed the *wet bulb temperature*. It will be lower than that of the dry bulb thermometer, because the evaporation of the continually renewed film of water on the bulb has a cooling effect on the mercury inside.

The difference between the readings is a measure of the drying effect of the surrounding atmosphere. If there is no evaporation, and consequently no cooling effect, then the two readings will have a difference of zero.

The difference between the two readings, taken in conjunction with the dry bulb temperature, makes it possible to calculate the drying power of the atmosphere. This drying power varies with the content of the air. If the air contains all the moisture it can hold, it will have no drying power at all. So, whenever we get a zero difference between the two readings, we conclude that the air contains all the moisture possible. It is 100 per cent full. The technical statement for this condition is that the *relative humidity* is at 100 per cent. However, the two readings may be such that, when considered along with the dry bulb temperature, calculation shows that the air contains one-half of its proper maximum quota of moisture. The relative humidity is 50 per cent. In short, the *relative humidity percentage indicates the proportionate possible content of moisture*.

The possible content of moisture varies with the dry bulb temperature. The warmer the air, the greater the possible content. A relative humidity of 75% means three-quarters of what is possible; but as the possible content changes from one dry bulb temperature to another, the information that the atmosphere has a relative humidity of 75% does not tell us the weight of water in a unit amount of air.

If, however, we are also informed as to the dry bulb temperature, we may turn to a tabulation and note what weight—say, in grains avoirdupois—1 cubic foot of air at that temperature is capable of holding. Whatever it is, 75% relative humidity now means something—it now means three-quarters of that weight. Suppose we found from the table that 10 grains is the possible content. Then we know that actually 1 cubic foot contains $7\frac{1}{2}$ grains of moisture.

Some Practical Considerations

A warehouse equipped with a flexible up-to-date air conditioning plant of such character that it has independent control of temperature and humidity will be able on occasion to jockey with the situation.

Before dealing with this from the viewpoint of fruits and vegetables, let me give an illustration of a relevant character from another line of commercial activity.

(Continued on page 84)

CHARLOTTE, N. C.

AMERICAN STORAGE & WAREHOUSE CO.

CHARLOTTE, N. C.

OFFICE AND WAREHOUSE 505 S. CEDAR ST.

MERCHANDISE STORAGE ONLY. POOL CARS DISTRIBUTED. MOTOR TRUCK SERVICE LOCAL AND DISTANCE. PRIVATE RAILROAD SIDING.

ESTABLISHED 1905

CHARLOTTE, N. C.

Carolina Transfer & Storage Co.

1230 W. Morehead St., Charlotte, N. C.

Bonded fireproof storage.

Household goods and merchandise.

Pool cars handled promptly. Motor Service.

Members A. W. A. and N. F. W. A.

CHARLOTTE, N. C.



MERCHANDISE STORAGE

Pool Car Distributors
Private Sidings

UNION STORAGE & WAREHOUSE CO., INC.
(BONDED)

1000-1008 West Morehead St.

Private Branch Exchange

30 Private Offices

Insurance Rate 35c

MEMBER OF A.W.A.—MAY.W.A.—ALLIED DIST., INC.

TARBORO, N. C.

EDGEcombe BONDED WAREHOUSE

TARBORO, N. C.

Largest Sprinklered Warehouses in
Eastern North Carolina

Insurance rate 22 1/2 cents

Pool Car Shipments and Distribution Service—Trucking

Facilities

Located in the Most Prosperous Section of North Carolina

WILMINGTON, N. C.

33,000 Sq. Ft. Floor Space—Fireproof

Farrar Transfer & Storage Warehouse

1121 South Front Street

Household Goods, Storage, Packing, Shipping

POOL CAR DISTRIBUTION

MOTOR SERVICE

Use Private Siding—A. C. L. R. R.

FARGO, N. D.

Union Storage & Transfer Co. FARGO, N. D.

General Storage—Cold Storage—

Household Goods

Established 1906

Four warehouse units, total of 100,000 sq. ft. Four space—two sprinkler equipped and two fireproof construction. Low insurance rates. Spot stocks, pool car distribution, complete warehouse services. Ship in our cars for prompt and good service.

Office: No. 608-10 Northern Pacific Avenue

AWA—ACW—MHW—NFWA

GRAND FORKS, N. D.

KEDNEY WAREHOUSE CO.

STORAGE—MOVING—PACKING

SHIPPING

POOL CAR DISTRIBUTION—MOTOR FREIGHT TERMINAL

The Producers of

Walgreen Drugs

select their

Merchandise and Household Goods Warehouses
from the pages of this Magazine

AKRON, OHIO

Cotter-City View Storage Co.

Main Office: 70 CHERRY ST., AKRON, OHIO

150,000 SQ. FEET STORAGE SPACE

Fireproof, concrete buildings, modern facilities, convenient location, ideally suited for clean, careful storage of

HOUSEHOLD GOODS and MERCHANDISE

Distribution area: Akron, Barberton, Cuyahoga Falls. Special attention to pool cars. Low transfer rates.

LONG DISTANCE MOVING

Pool Cars and Spot Stock Accounts Solicited. Private Siding B. & O. R. R. Free switching all roads. Low insurance rate.

Members of N. F. W. A.—O. A. C. H.—O. W. A.

AKRON, OHIO

The KNICKERBOCKER

WAREHOUSE & STORAGE CO.

36 CHERRY STREET

Household Goods and Merchandise
Fireproof Warehouse—Local and long distance moving.

CANTON, OHIO

CANTON STORAGE, Inc.

FOURTH AND CHERRY N.E.

**merchandise, household goods cold storage**

U. S. Customs and Internal Revenue Bonded Warehouse No. 7

Pool cars distributed. Private sidings. Free switching on all roads. Separate fireproof warehouses for household goods. Modern equipment combined with speedy service.

New York City Representative:
MR. J. W. FERRIS
254 Park Avenue
Telephone: Plaza 3-1235Chicago Representative:
MR. W. H. EDDY
53 W. Jackson Blvd.
Telephone: Harrison 1498MEMBER: A.C.W.—May.W.A.
A.W.A.—O.F.A.A.—O.W.A.

CINCINNATI, OHIO

THE BALTIMORE AND OHIO WAREHOUSE CO.

Operating large modern warehouses for the storage of general merchandise at Second and Smith Sts. and at Sixth and Baymiller Sts.

Special room for storage of semi-perishable goods: Nuts, Dried Fruits, Etc.

Special attention given to redwood in L.C.L. lots the same day orders are received. Facilities for storage of Oils, Grease, Chemicals, and goods requiring cellar storage.

Low Insurance Rates. Sprinkler Systems. **FRED W. BERRY.**Address: Second and Smith Sts. **Manager and Treasurer.****CONSIGN VIA BALTIMORE AND OHIO RAILROAD**

CINCINNATI, OHIO

Consolidated Trucking, Inc.
Local and Long Distance Trucking
—Storage

N. W. Corner Pearl and Plum

Merchandise Storage Pool Cars
Penn. R.R. Siding Inter-City Truck Depot

CINCINNATI, OHIO

**The "A" Naish Moving and Storage Co.**

3211 Madison Road, Cincinnati, Ohio

Two Household Goods Warehouses of Fireproof Construction, 40,750 Sq. Ft. Consign Shipments to Oakley Sts. of B.&O. Distribution of Pool Cars. Transfers Household Goods. Cargo Insurance.

Member of May WA—OFWA—OACH—CinVOW

CINCINNATI, OHIO

YOUR OWN BRANCH HOUSE
—WITHOUT THE OVERHEAD**Modern — Efficient — Responsible****EVERY DISTRIBUTION AND
WAREHOUSING SERVICE
KNOWN TO THE TRADE****CINCINNATI TERMINAL WAREHOUSES, INC.**

U. S. General Bonded Warehouse Number 1

Parkway 8070

Cincinnati, O.

(Continued from page 83)

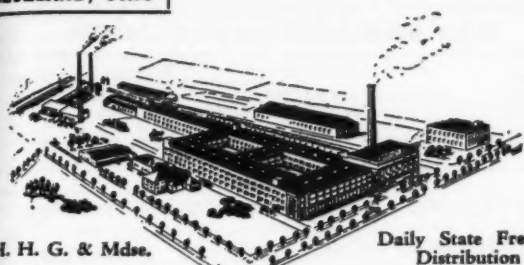
Paper to be printed may be difficult or impossible to carry through the printing press when the relative humidity becomes too high. And this is apt to be the case in humid climates during warm weather. As I recollect this instance, the situation in a certain press room became difficult one summer day. The paper could not be made dry enough. There was too much moisture in the atmosphere for the atmosphere to dry things fast enough. I do not remember whether the relative humidity was all the way up to 100%; at any rate, it was too high.

This situation was taken care of simply. The heating system was brought into action and the temperature raised. This had the effect of increasing the capability of the atmosphere to hold moisture. But, roughly, the actual weight of moisture per cubic foot of air remained the same. Consequently, the actual amount was smaller relatively to the possible content. In other words the relative humidity was lowered. This meant that the drying power was augmented. Roughly, the foregoing gives the science of the case. The workmen had to stand the higher temperature. But the job could go on—that was the main point.

In a warehouse, we may have a somewhat similar situation. Fruit may be in storage; there may be a sudden increase in the humidity, because of a change in the weather. And the higher relative humidity may be bad for the fruit. If the air conditioning plant of the warehouse is competent to meet the situation by its de-humidifying facilities, no trouble is to be expected. But if the plant cannot quite handle the required de-humidifying, that is something else. In this case, it may be permissible to get out of the difficulty in just about the same way the printers did. That is to say, if the fruit will not be harmed by an increase

(Continued on page 85)

CLEVELAND, OHIO



H. H. G. & Mdse.

Daily State Freight
Distribution

BRAMLEY STORAGE CO.

A Storage House of Distinction

Railroad Siding, Low Insurance Rates, Sprinkler System
and Steam Heated C.F.W.A. O.W.A.

(Continued from page 84)

of temperature, we may expect the air conditioning plant to warm up the atmosphere and in this way correct the excessive relative humidity. This is strictly in accord with the rule: an increase of temperature operates to reduce the relative humidity.

The rule works both ways. We may reverse things and say: a decrease in temperature operates to raise the relative humidity. There may arise, because of a variation in the weather, a situation such that the relative humidity is dropping. This means an increasing drying power on the part of the atmosphere. For another fruit in storage in another room, this may be bad, we want to stop it. We have two courses: (1) the air conditioning plant may be operated to add moisture to the atmosphere through its humidifying facilities; or (2) it may lower the temperature of the air. If the fruit is able to accept the lower temperature without loss of quality, then we may reduce the atmospheric temperature.

Having read the foregoing, the reader may perhaps have no difficulty in seeing that relative humidity and temperature may often be played against each other. And it may be desirable to do so. It may cost less sometimes to do one thing rather than another, when operating the air conditioning plant. Or it may be physically possible to do one thing but not the other.

Naturally, not all plants said to be air conditioning installations will be completely competent, even under the best of conditions, to respond to any and all demands for heating and cooling and humidifying and de-humidifying. However, it is quite possible to get such a plant and to have it ready for miscellaneous business.

They cost money. Not every warehouse could make the necessary investment. The shipper of fruit, vegetables, and the like, might do well to bear these remarks in mind. Just because a warehouse has air conditioning, it does not follow that it can take care of any and all jobs. On the other hand, the investment required to provide for a restricted line of air conditioning service may be moderate. Nevertheless, it is just as well for concerns and individuals who desire air conditioning service of a warehouse to inquire whether the warehouse is really prepared to supply the thing wanted.

Equal Quality Variations in Warehouses

Air conditioning for warehouses is as yet too young, perhaps, to make it possible to say right now whether it can be varied with the same success as has been found practicable in comfort air conditioning for human beings. I am willing, however, to go on record as prophesying that warehouses will be able eventually to carry fruits and vegetables through a varying combination of temperature and relative humidity without in any way affecting the quality.

(Continued on page 87)

CLEVELAND, OHIO



**Distribution Terminal
Warehouse Company**

Central Viaduct and West 14th St.

Cleveland, Ohio

Local, regional and storage-in-transit service, offering every facility known to modern distribution.

New
Ultra-Modern
Plant

Trunk Line
Terminal
Complete Service

Continent-wide Connections

CLEVELAND, OHIO

**"A WAREHOUSE IS ONLY AS GOOD
AS ITS PERSONNEL"**

To insure good service use

THE GREELEY-GENERAL WAREHOUSE CO.

LOCATED IN THE NEW YORK CENTRAL FREIGHT TERMINAL
AT BROADWAY AND E. 15th ST.

CLEVELAND, OHIO

**LEDERER
TERMINALS**

... HAVE SOMETHING IN STORE for you ...

THREE GREAT WAREHOUSE LOCATIONS

GENERAL OFFICE, 1531 W. 25th ST.

CLEVELAND, OHIO

DIRECT FROM FREIGHT CARS



SHIPMENTS to Cleveland, consigned to The Lincoln Storage Company over any railroad entering the city, can be handled from freight car direct to our loading platform.

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W. B. Thomas, Vice-Pres.

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CLEVELAND

11201 Cedar Ave.

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TO OR FROM CLEVELAND

Our private rail facilities enable us to give prompt handling of pool cars or lift van loads to any destination.

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Exclusive Agent:
Greater Cleveland
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POOL-CAR DISTRIBUTION

HEATED LIQUOR STORAGE

CUSTOMS BONDED
WAREHOUSE

LEASE SPACE



"IN THE HEART
OF CLEVELAND"

A MODERN, FIRE-PROOF STRUCTURE WITH
ENCLOSED DOCKS. N.Y.C. SIDING WITHIN BUILDING

THE OTIS TERMINAL WAREHOUSE CO.

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POOL CAR DISTRIBUTION

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In the Center of Columbus.

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MEMBER: A.W.A.—O.W.A.—A.C.W.

COLUMBUS, OHIO

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and DISTRIBUTION

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THE NEILSTON STORAGE CO.

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MERCHANTS TRANSFER & STORAGE CO.

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Heavy Haulage Our Specialty. General Distribution and Storage of Merchandise. Motor Vans for Local and Long Distance Moving. Storage for Household Goods and Machinery. Packing and Shipping. Private Siding New York Central Lines

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Member of A. W. A.

The Producers of
Hops in Bales
select their

Merchandise and Cold Storage Warehouses
from the pages of this Magazine

(Continued from page 85)

The reader may welcome a further clarification of this. It may be well to say briefly what is being done in comfort air conditioning, and then to pass on to fruits and vegetables.

In cold weather it is considered fine to maintain, inside a building, a fixed temperature of 70° F. coupled with a relative humidity of 50%. People in general are quite comfortable with this combination. A great deal of investigation has, however, made it perfectly clear that the same bodily comfort is maintained when the temperature is increased or decreased, within limits, provided certain variations are simultaneously made in the relative humidity. The temperature may, for example, be raised to 75° and there will be no change in the feeling of comfort provided the relative humidity is lowered a certain definite amount. Similarly, the temperature may be reduced to 65° without change in comfort provided a certain definite increase is made in the relative humidity. Charts are, in fact, available on which may be found at least one curve, or graph, every one of the points representing a certain definite relative humidity and a certain definite temperature. The bodily comfort is the same all along the curve. The temperature gradually changes as one moves along the curve, and so does the relative humidity. But the degree of comfort is always the same.

Such a curve is appropriately called an *equal comfort curve*.

The question is whether something precisely similar is not true of fruits and vegetables—an *equal quality curve*.

Let us consider this. Here is a certain fruit which the experts say requires, for short-time low temperature air conditioning, a dry bulb temperature of 47° and a relative humidity, at that temperature, of 68%. What seems probable is that this statement of a combination of temperature and relative humidity is no more of an ironclad rule than the comfort cold weather demand for 70° temperature and 50% relative humidity is for human beings.

Comfort is maintainable through a considerable range of combinations. Why should not fruit or vegetable quality be similarly maintainable?

It is perhaps too soon to give a positive affirmative answer. Human comfort turns on a relation between temperature and drying power. It seems reasonable to expect that fruit quality depends on a similar relation between exactly the same things. Doubtless, with the spread of modern air conditioning amongst warehouse, we will soon get the answer.

The Shipper Should Inform Himself

It is of interest to the shipper that the warehouse make as low a rate as possible, naturally; but this idea should not be carried too far. At the same time, it is undoubtedly the case that complete knowledge on the part of the warehouse, if coupled with adequate equipment, will enable it to take advantage of the possibilities of sometimes substituting a cheaper procedure for a more expensive one.

In some cases, for example, it may be possible to use a higher refrigeration temperature, provided the humidity is kept at a lower level than usual. In other cases, the warehouse might well be unable to do anything of the kind, because of the risk of spoiling goods or at least lowering the quality.

In short, the warehouseman can reasonably be expected to be able to save money on occasion, provided he has adequate equipment plus the knowledge of what he can and cannot do. Such a warehouseman, able frequently to save money, may be able to quote lower rates than some other warehouse which would have to be unnecessarily careful of this and that, lest some big mistake be made.

At all events, the shipper should inform himself as

(Continued on page 88)

WHEN WRITING ADVERTISERS MENTION DISTRIBUTION AND WAREHOUSING

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Every Known Modern Warehouse Facility

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Merchandise storage . . . Pool car distribution . . . Fireproof . . . Private siding Nickel Plate Road . . . Free switching . . . Negotiable receipts . . . Transit storage arrangements . . . Motor truck service . . . Located in jobbing District . . . U. S. Customs Bonded.

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Commercial Warehouse Co.50,000 sq. ft. for Exclusive Merchandise Storage
Pool Car Distributors

Free Switching

14c. Insurance rate

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Established 1889

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General Warehousing and Distribution

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TRUCKS
& TEAMING****HOUSEHOLD
GOODS****MERCHANDISE**MEMBERS
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Pool Car DistributionFree Switching
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U. S. BONDED and PUBLIC WAREHOUSES

Merchandise Storage and Distribution
Lowest Insurance Rates—Sprinkler EquippedMember A. W. A.
Eastern Representative Distribution Service, Inc.

(Continued from page 87)

much as possible upon the intricacies of storing his perishables, in order that he may pick his warehouse. A low rate from a warehouse may be the result of experience, knowledge and equipment. A high rate may be quoted by another warehouse because of ignorance of what is and is not permissible. Furthermore, a high rate may mean simply that the warehouse understands its business, and knows safeguards which should be taken if quality is to be preserved. If these safeguards cost additional money, it is reasonable that the extra costs should be included in the rate. A competing warehouse may not be completely equipped and so unable to handle the safeguards, or may know nothing about such safeguards. A low rate may be given, but the goods may suffer.

In view of all this, it might be a good idea for the shipper himself to study the subject.

Control of Relative Humidity

In low temperature storage of many commodities, control of relative humidity may become of highest importance. Low temperature may be required for various reasons, differing from commodity to commodity. This is especially the case with foodstuffs. With something like a fur coat, if we are going to reduce the storage temperature, in order to provide against moth damage, then a relative humidity around 58% will be desirable.

The question of the optimum—that is, best—relative humidity and its variation with the article to be stored is doubtless to be attributed, in part at least, to the variation of the moisture content in different articles themselves. Wool, silk, cotton, fruits, vegetables, foodstuffs in general, contain more or less water when in the natural state. Let us not confuse this moisture content of the commodity with the moisture of the surrounding air. There is, no doubt, an equilibrium between the two.

Thus, at a given temperature and a given relative humidity of the surrounding atmosphere a woolen article will give up to or absorb moisture from the air until an equilibrium point is reached, where the moisture content of the wool comes to rest. This percentage of water in the wool will be the natural thing for that particular condition of the atmosphere.

But if we raise or lower the temperature, a new adjustment will have to take place. The air being circulated right along will, because of its relatively large amount, control the situation and compel the wool or foodstuff or other article to get into a possibly unnatural and damaged state. Wool might not suffer any permanent damage. With many other things, however, we may not get off so well if the refrigerated air circulated by the warehouse should carelessly or ignorantly be made to force a wrong condition upon them.

Investigation, however, has settled down, for a considerable number of foodstuffs and other articles, upon a definite optimum relative humidity which should accompany a given refrigerating temperature. This differs from article to article, and with the temperatures of storage.

Warehouse Engineering Data

The reader may welcome some examples by way of illustration. Take strawberries. A temperature close to the freezing point of water is recommended. That is, anywhere between 2 degrees below and 2 degrees above. A relative humidity of 90% is specified as suitable. Now, 90% at the freezing point does not mean the same content of water for the atmosphere as, say, 90% at the temperature of 68° or 70°, so comfortable to human beings, under usual moisture conditions. But it does mean a small drying power. It is, naturally, not desirable to dry the strawberries.

(Continued on page 91)

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HOLMAN TRANSFER CO.
1306 N. W. HOYT STREET
General Merchandise Storage and Distribution
Private Siding All Railroads Entering Portland
Located in the center of wholesale and jobbing district.
**POOL CAR DISTRIBUTION
A SPECIALTY**
Member A. W. A.—Amer. Chain.
Established 1864

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Pool Cars
Efficiently
Handled
Merchandise
and
Household
Goods Storage



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American Warehousemen's Association, National Furniture Warehousemen's Association, Penna. Furniture Warehousemen's Association, American Chain of Warehousemen

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Pool Cars and L. C. L. Distribution to the Pacific Northwest and Inland Empire with Free Pick Up and Delivery Service to All Main Points.
Route your shipments Via Water or Rail to us at our private Siding.
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Our Personal Supervision assures you prompt and proper service.

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STORE DOOR DELIVERY ARRANGED FOR
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Complete Facilities for Storage and Distribution
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Agents: Universal Transcontinental Freight Service

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Household Goods Storage, Packing, Shipping
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Merchandise and Household Goods
MANUFACTURERS' DISTRIBUTORS MOTOR SERVICE
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Merchandise Storage, Household Goods, Transferring, Forwarding
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THE ERIE STORAGE & CARTING COMPANY
1502 SASSAFRAS ST., ERIE, PA.
Trackage on New York Central Lines and switching to all other lines. Unexcelled facilities for handling shipments of merchandise and household goods. Branch house service for manufacturers. Pool cars distributed.
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THE IRWIN TRANSPORTATION COMPANY
1502 Sassafras St. Erie, Pa.
Overnight service on merchandise to all of the above cities.

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CARNAHAN Transfer and Storage
The most reliable transfer in Venango County. Fireproof warehouse. Private rooms for furniture and piano. General hauling. Overland hauling. Piano moving. Furniture packing a specialty.
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A responsible nation-wide moving service. Call upon us when transferring representatives any place in the United States, Canada or abroad.

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ATLAS TRANSPORTATION COMPANY
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Storage, moving and distribution of household goods and merchandise.

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Fidelity—20th Century Storage Warehouses
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H. NORRIS HARRISON, Pres. F. L. HARNER, Vice-Pres., Treas.
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Bus type vans for speedy delivery anywhere. We distribute pool cars of household goods. Prompt remittance.

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U. S. Bonded and Free Stores

Carload Distribution

Direct Railroad Sidings: Penna. R. R.—Reading R. R.

Company owns fleet of motor trucks for city and suburban deliveries

Traffic League Opposes Rail Rate Increases and Motor Subsidiaries

THE National Industrial Traffic League at its convention on Nov. 19 and 20 at the Hotel Pennsylvania in New York City went on record opposing the proposed rate increase of the railroads. It opposed also formation of sub-corporations by rail carriers for motor transportation purposes, or acquisition of motor truck lines by railways. This, it was claimed, tended to reduce the competition which would exist under separate agencies.

As regards rate increases the opposition was based on the fact that carloadings are increasing, passenger revenue is greater and business in general is improved; hence the group thought it inadvisable for the rails to revise permanently the rate structure on commodities generally.

Marion M. Caskie, Interstate Commerce Commissioner, said that for adequate enforcement of the Federal Motor Carrier Act the I. C. C. would probably have to depend to some extent on willingness by the industry to police itself; and on cooperation from Government officials and shipper and carrier organizations, such as the league.

Commissioner Caskie brought out that although the motor vehicle regulations were made simple at the start, amplification has been necessary. He said more than 50,000 tariff publications, 17,000 schedules and approximately 1,900 copies of written contracts concerning rates, fares and charges of carriers of passengers and property had been filed. More than 1,000 of the tariffs and schedules have been rejected.

"It may also be anticipated," he continued, "that the Commission will from time to time be called on to intervene in the competitive warfare between the railroads and the trucks in order to set reasonable limits to the rate-cutting process."

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68 Acres OF FLOOR SPACE**Motor Truck SERVICE**

We own and operate a fleet of motor trucks to provide "Store door" delivery throughout the Philadelphia trading area and are especially equipped to render "next morning" delivery anywhere within the area shown in the above map.

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North Broad Storage Co.

BROAD & LEHIGH & BRANCHES
Member N.W.A., P.M.T.A., C.F.M.A. of Pa.

PITTSBURGH, PA.

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Office: Duquesne Way and Barbeau St.
Merchandise Storage & Distribution

Members A. W. A.

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"33 Years of Service"

Merchandise

Warehouses

Sprinkler Protected

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HOUSEHOLD STORAGE POOL CARS
MERCHANDISE STORAGE PACKING
LOCAL AND LONG DISTANCE MOVING
PRIVATE SIDING, D. L. & W. R. R.

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Our combination of a modern trucking service and an efficient warehousing organization is ideal in serving all the needs of distributors in this territory. Our building is modern, sprinklered and located right in the heart of Pittsburgh's jobbing district. Private siding on the Penna. R.R.

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Prompt and Efficient Service
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MERCHANDISE STORAGE and DISTRIBUTION

HOUSEHOLD GOODS—DRAYAGE

IDEAL DISTRIBUTING POINT FOR CENTRAL PENNSYLVANIA

(Continued from page 88)

Consider furs. Here also we have it desirable to keep the storage temperature down near the freezing point of water. One authority gives 40°. A certain large New York warehouse uses, occasionally at any rate, a still lower temperature. What temperature to employ turns on the prevention of moth damage, largely, and on how prompt we wish our results to be. Zero—that is, 32 degrees below the freezing point—is said to be competent to kill all moths and eggs in one day. If we allow three weeks, 25°—or seven degrees below—is cold enough. Doubtless, if we have time enough, we could raise the temperature to the 40° stated.

In general it is probably a good rule to determine the storage temperature, first of all. And then the relative humidity which at that temperature will have just the drying power necessary to maintain quality.

This brings us to the water content in commodities when in fine condition. Some reference has already been made that many commodities naturally contain water. Wool and other textiles have been cited, and fruits, vegetables, and foodstuffs in general. Persons not already informed will perhaps be surprised to learn actual percentages. In dietary circles it is more or less common to allude to certain classes of fruits and vegetables as 5, 10, 15 and 20% articles. The designation indicates the food value. The balance of the 100% is water.

For example, apples contain, according to one authority, 84.6 per cent water. One would naturally expect this percentage to vary with the variety of apple. But let us, for the moment at least, refrain from quarreling with the statement. This 84.6 per cent classes apples as a 15% fruit. Jamaica bananas are also containers of water—75.3 being the percentage figure given. Tomatoes are nearly all water, the percentage being 94.3;

(Continued on page 92)

PROVIDENCE, R. I.

CADY MOVING & STORAGE CO.**FIREPROOF WAREHOUSE**Storage, Moving, Shipping
80-90 Dudley St.

Member National Furniture Warehousemen's Assn.

PROVIDENCE, R. I.

Terminal Warehouse Company of R. I., Inc.Storage all kinds of General Merchandise, Pool Car
Distribution. Lowest Insurance.Trackage facilities 50 cars. Dockage facilities on
deep water.

Shipping directions South Providence, R. I.

CHARLESTON, S. C.

Charleston Warehouse and Forwarding Corp.Merchandise Storage and
Distribution of Pool CarsModern Concrete Warehouse. 100,000 Square Feet of Storage Space.
Private Tracks Connecting with All Railroad and Steamship Lines.
Motor Truck Service.

Members of the American Chain of Warehouses, Inc.

GREENVILLE, S. C.

*"The Heart of the Piedmont"***TEXTILE WAREHOUSE CO.**

Est. 1923

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GENERAL MERCHANDISE—H.H.G. STORAGE

Pool Car Distribution—Motor Truck Service

Low Insurance Rate

Private Siding

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**FIREPROOF STORAGE &
VAN COMPANY, Inc.**

Successors to Knoxville Fireproof Storage Co.

201-211 Randolph St.

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135,000 square feet on Southern Railway tracks.

Equipped with Automatic Sprinkler

Insurance at 12c. per \$100.00
per annum.
Pool Cars distributed.Household goods shipments
solicited. Prompt remittances
made.**MEMBERS**

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PROMPT AND EFFICIENT SERVICE

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**Rowe Transfer & Storage Co.**

416-426 N. Broadway

Household Goods and Merchandise Storage and
Distribution. Pool Car Distribution.

Fireproof Warehouse. Low Insurance.

Agent, Agra Mayflower Transit Company
Member, Mayflower Warehousemen's Association

MEMPHIS, TENN.

S. S. DENT, Pres.

General Whse. & Dist. Co.

435 So. Front St.

*"Good housekeeping, accurate records,
Personal Service"*Located in the center of the Jobbing &
Wholesale DistrictSprinklered
Private R. R. sidingLow Insurance
Perfect service

(Continued from page 91)

so tomatoes are a 5% vegetable. When you buy round steak, 70% of the money goes for water in the edible part and some more money for bone, etc. With lean lamb chops, the case is somewhat better, the water content of the edible portion being rated at 60.3%. Brook trout, edible portion, contain 77.8% water; and striped bass just about the same (77.7%).

The foregoing is not to be regarded by the shipper as merely curious information of no interest to him. It is not enough simply to let the warehouseman look on it as his headache, if he wants to. The shipper may think that all he wants is that the warehouseman attend to his duty of providing proper cold storage. However, the shipper certainly wants the right warehouse service. He does not wish his goods spoiled, even if he can sue and recover damages from the warehouse. The shipper is in the business of making profits from his shipments and not in the business of getting legal damages out of warehouses.

It may not be necessary for the shipper to study out to the last small detail just how the temperature and relative humidity are to be maintained with sufficient precision. But he does have the job of selecting the warehouse. If he proposes to ship perishable goods, it is going to be just as well that he inform himself as to whether the warehousing will be a rough-and-ready job or one requiring up-to-date facilities and expert operators. If the latter requirements are necessary, then he should realize that an old style warehouse with out-of-date equipment and run by rough-and-ready operators cannot do the job. Even if they do offer very low rates.

The Goods May Freeze

The question of freezing articles in cold storage may or may not be important. With foodstuffs, it can be really vital. So, this problem of freezing must form part of any complete consideration of modern low temperature air conditioning.

In the first place, the freezing temperature does not in general coincide with the freezing temperature of water. As a rule, it may be taken as more or less below 32°. This is on the safe side. However, if the dry bulb, or ordinary, temperature is dropping, we are to regard arrival at the freezing point of water as a danger signal. A pan of water with a shallow amount of the liquid might serve, in many cases, as a "red light" for the workmen, the red light coming on when the water starts to freeze. At any rate, quite a number of commodities have freezing temperatures just a little below 32°.

Beets freeze at 31.1°—less than 1 degree below the danger point of 32°. Green peas freeze at 30.03°. When we come to Jamaica bananas, we find complications. The water content, as already stated, is 75.3 per cent, which apparently applies to the fruit as a whole. But we must distinguish between green and ripe fruit; and in both, between peel and pulp. Thus there are four different freezing temperatures. The following presents this in detail:

Freezing Temperatures of Jamaica Bananas

Condition	Part	Temperature
Green	Peel	29.84
Green	Pulp	30.22
Ripe	Peel	29.36
Ripe	Pulp	26.00

Let it be noted that the peel is more sensitive than the pulp. Conceivably, then, there might occur cases where a dropping temperature would be checked a trifle late to preserve the peel intact, but still in time to save the edible part. With ripe bananas, the temperature has to fall pretty low—to 26°—to freeze the pulp. Knowledge of such things may enable a smart operator to save something even though refrigeration

(Continued on page 95)

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L. E. McKnight, Pres.

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Member, Associated Warehouses, Inc.

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Established 1856

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New River and Rail Terminal Warehouse. Merchandise Storage and Pool Car Distribution. Lowest Insurance Rates—\$1.10 per \$1,000.00 per Annum. Bonded Agents of all Rail and Barge lines. Let us serve you in the Mississippi Valley.
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Merchandise Storage, Distribution and Drayage
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Fireproof Warehouses—Up-to-date Equipment

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POOL CAR DISTRIBUTION

FREE SWITCHING—CITY TRUCKING

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Automatic Sprinklered — Lowest Insurance Spot Stock and Pool Car Distribution — Private Siding — Free Switching Motor Truck Service.

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Fireproof Storage Co.
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Modern Fireproof
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Operators of Lone Star Package Car Company (Dallas Division). Daily service via rail from St. Louis and C.F.A. territory to all Texas points. Semi-weekly service via Morgan Steamship Line from New York and Seaboard territory to all Texas points. N & M T Motor Freight Line, serving South, Central, North Texas and Oklahoma.

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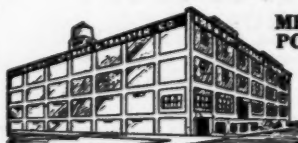
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For 60 Years **BINYON-O'KEEFE** For 60 Years
Fireproof Storage Co.
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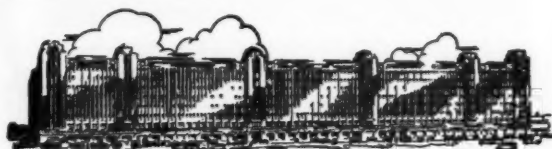
Storage, Cartage, Pool Car Distribution

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Warehouses located at Harlingen, Brownsville, McAllen, Edinburg.
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Furniture vans—equipment for heavy hauling.

Service Covers the Lower Rio Grande Valley

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Operating three hundred truck units serving Texas, Oklahoma,
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Lowest Insurance Rate

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Fifty-three Years of Dependable Service
SERVICE TO COVER EVERY BRANCH OF THE INDUSTRY
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Dependable Service Since 1913

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COLD STORAGE - - - CARTAGE
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Serving the World's Largest Oil Field
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The highest type of BONDED Storage
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(Reinforced concrete)
Motor Freight Service to All Territory
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Members { National Furn. Warehousemen's Assn.
Southwest Warehouse & Transfermen's Assn.
See TYLER-TARRY-FAGG Co. Associated

(Continued from page 92)

may have gone too far to preserve 100% of the quality. A banana might have its peel more or less damaged and thus become unsuitable for the gilt edge trade, but the same banana might be salable otherwise. Under 29.36° means the peel is not so perfect; but above 26.00° means the pulp is still right. And after all, the pulp, not the peel, is important.

One more illustration as to refrigeration temperature and its importance. But the reader is by no means to get the impression that temperature is everything. Relative humidity is also of high importance. The illustration I now bring forward relates to humidity and also refrigeration without freezing. It need not divert us from the question of relative humidity.

For more than a half century Great Britain has been getting mutton from places like New Zealand. It is shipped refrigerated to destination. But despite the fact that mutton can be brought in successfully, the same can not be said of beef, except that researches have now developed a special kind of air conditioning and beef has been coming in in quantity for the past two or three years. The mutton can be chilled down to 12° F. Beef freezes at 30.2°. If an attempt is made to go lower, the water in the beef, or some of it, comes out and becomes ice. The temperature of 29.5° seems to be about the lowest permissible limit. And this is not low enough to keep the micro-organisms absolutely in check. The temperature is low enough, however, for fine success provided the storage time is not too long.

Shipments from South America to London have been and are successful. But this is because the trip is of only moderate length. No doubt the microscopic life is there and is hard at work, but 29.5° or the like is enough to keep them sufficiently in check.

While this is perhaps to be considered as primarily an illustration of the importance of carrying refrigeration just far enough, there are other points of importance. One is humidity. Because the temperature could not be carried far enough to hold the micro-organisms in check long enough to make the trip, something besides cold storage had to be carried out.

Two methods may be mentioned. One is by killing the tiny forms of life by means of carbon dioxide; this has proven wonderfully successful. The other is to shorten the period of refrigeration by building and using faster ships. Probably, both methods will be used in conjunction by some importers.

Humidity comes in likewise. Dr. T. Moran, one of the British experts, says the lower the temperature and humidity, the greater the prolongation of the storage life of beef. The matter of temperature seems fixed. If temperatures lower than, say, 29.5° are em-

(Concluded on page 97)

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WESTERN GATEWAY STORAGE CO.*Warehousing in all its branches*

Precise and definite service at reasonable rates
Ogden is the largest railroad terminal in the Intermountain West. Considerable time can be saved in the distribution of pool cars through Ogden

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CENTRAL WAREHOUSE**Fireproof****Sprinklered**

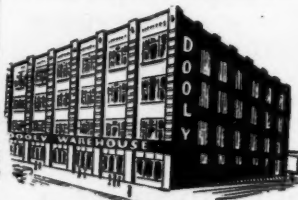
Insurance rate 15c. Merchandise Storage. Pool Car Distribution. Office Facilities.

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DOOLY TERMINAL WAREHOUSE**"IT'S THE LOCATION"**

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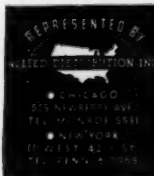
paid; extending all services of a branch house except the actual selling. Free pick-up and delivery service from warehouse to transportation depots. Office space.

ASSOCIATIONS—Utah Warehousemen's Assn.
IDEALLY LOCATED—On the edge of Salt Lake's business and financial district and right in the center of the jobbing section—in the heart of all business activity, and the most desirable location in Salt Lake City.
Our negotiable receipts are accepted by banks as collateral against Merchandise stored in warehouse. Prompt delivery service.

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Over 1,000,000 cubic feet reinforced Concrete Sprinklered Space

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Merchandise Warehousing - Distribution
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AUTOMOBILE STORAGE

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WE SPECIALIZE IN MERCHANDISE STORAGE

AND DISTRIBUTION

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Established 1892

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For economical storage and distribution you will want to know more about our individualized services. Our fireproof warehouses are in the Southgate Terminal, on the waterfront and in the center of Norfolk's wholesale district. Served by all rail, water and motor lines.

Write for Booklet—"7 POINT DISTRIBUTION"

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Two Fireproof Storage Warehouses—116,000 Square Feet Floor Space—Automatic Sprinkler System—Lowest Insurance Rates in Richmond—Careful Attention to Storage—Packing and Shipping of Household Goods—Private Railroad Siding—Pool Car Distribution—Motor Van Service to All States East of Mississippi River.

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PACKING FOR SHIPMENT

Local and Long Distance Movements

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Specializing in the movement of household furniture and office equipment. Warehouse with a private railroad siding right to the door. Distribution of household goods pool cars. Members of A.T.A., V.H.U. Assoc., N.D.A.

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Automatic Sprinkler

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We make a Specialty of Storage and Pool Car Distribution
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Member of American Chain of Warehouses

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SEATTLE, WASH.

Fireproof Warehouses 220,000 Square Feet

INSURANCE .133 Cents per \$100.00

GENERAL STORAGE AND DISTRIBUTING SERVICE

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Members of NFWA—ACW—WSWA

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CLASS A BLDG. SPRINKLER INSURANCE 22¢
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Close to

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Public Auto Freight Depot in Warehouse Eliminates Extra Handling.
Daily Service to Northwest Points Our Traffic Assistance Will Help You

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Free switching service—Low insurance rates
Associated with leading warehouses through
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Members of—American Warehousemen's Assn.; National Furniture Warehousemen's
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100,000 sq. ft. capacity
Established 1900



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Free Switching

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General merchandise storage and distribution

Located in the center of wholesale and jobbing district

Low insurance rates Office and desk space

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Consign to
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Largest Spot-Stocks in the
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Assembling and distribution of
pool and local shipments.
Agents for JUDSON.

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Located in Center of Wholesale

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General Merchandise Storage

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THE SHIPPING CENTER for
4 STATES

Ohio Kentucky Virginia West Virginia

Huntington is the shipping center of four states. From it
you can reach Southern West Virginia, Southern Ohio,
Eastern Kentucky and Northern Virginia by five railroads,
the Ohio River and paved highways leading in five direc-
tions.

A first class warehouse for your goods; private side track
from any railroad entering city—no switching charge; our
own trucks and a competent force of employees. All at a
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HUNTINGTON WAREHOUSE CORP.

1639-41-43-45 Seventh Ave., Huntington, W. Va.

Member of A.C.W.—A.W.A.

(Concluded from page 95)
ployed, we get up against formation of ice. Humidity,
however, can perhaps be lowered.

If we are going to control both temperature and
relative humidity of the storage atmosphere, we get
right into air conditioning with both feet.

This whole problem of prolonged cold storage of beef
promises to involve a kind of super-air conditioning.
Already we have refrigeration, control of humidity,
and the presence of a germicidal gas. There is still
something else, however, that goes wrong with beef.
The fatty parts are attacked by the oxygen in the air,
with the result that an unpleasant taste is produced.
This oxidation is more or less reduced by the fact that
the carbon dioxide content of the storage air is in-
creased, with the result of diluting the oxygen to a
further point than it is naturally in an ordinary at-
mosphere. But there appears still to be too much
oxygen. Dr. Moran has expressed himself, as to oxi-
dized fat, in speaking of the limitation of the time of
the cold storage of beef. He says:

"It is likely that ultimately the limit will be set not
by mould, but by oxidation of the fat whereby it ac-
quires a tallowy linseed oil taste."

So it may seem necessary or desirable to modify the
storage atmosphere still further by adding something
more to it. Super-air conditioning may seem a suitable
name for the total result.

For City of Washington, D. C.

refer to

DISTRICT of COLUMBIA

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THE GATEWAY CITY TRANSFER CO.

Affiliated with Murphy Bros. Warehouses, Inc.
417-431 North 3rd St., La Crosse, Wis.
C. B. & O. R.R. Siding

The logical distribution center for Western Wisconsin,
Eastern Minnesota, and Northeastern Iowa.
Trackage warehouse for merchandise and Free switching service.
We specialize in pool car distribution.

LA CROSSE, WIS.

La Crosse Terminal Warehouse Co.
GENERAL STORAGE

We make a specialty of storage and pool car distribution for agents,
brokers, and general merchandise houses.
Free switching service
Large fleet of Vans and Delivery Trucks
We give prompt service
430-434 SOUTH THIRD STREET

MADISON, WIS.

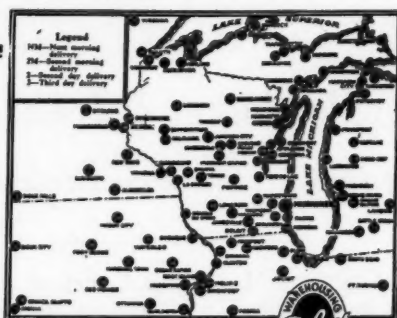


MRS. ROBERT M. JENKINS, Pres.

The Union Transfer & Storage Co.

State Bonded Warehouse on Private Switch
Fireproof Building 65,000 Square Feet
Pool Car Distribution by Truck or Rail
Private Siding Milwaukee Road,
Free Switching All Roads
Established 1895

MILWAUKEE, WIS.

**SPOT STOCKS PLUS SERVICE
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